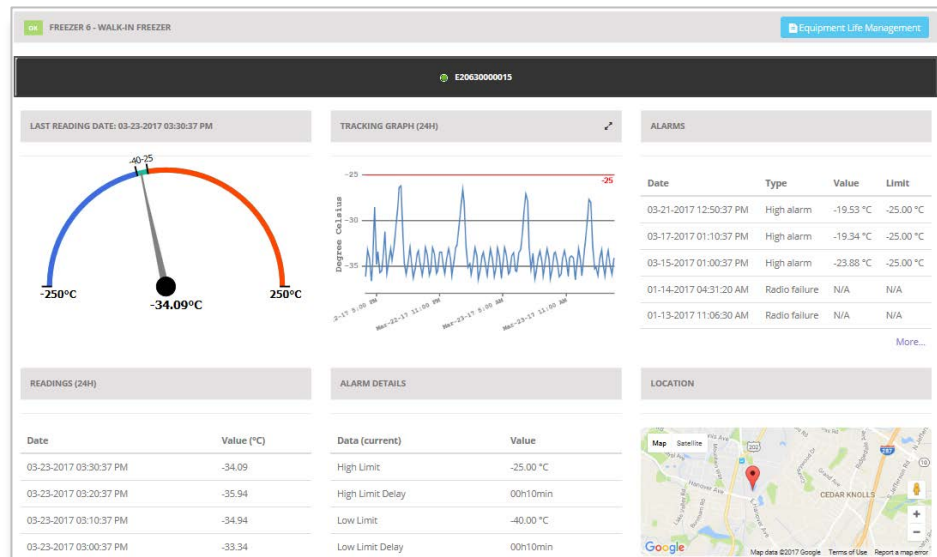


EDGE™

Wireless. Connected. Sensors.



EDGEConnect™ Monitoring Solution Web Application

User Guide



temptimecorp.com

1 Notices and safety

1.1.1 Safety instructions

IMPORTANT NOTE: Do not use this product for protection or as part of an automated emergency system or as for any other application that involves protecting people and/or property. Customers and users of Temptime products are responsible for making sure that the product is fit for the intended usage.

1.1.2 Disclaimer and limitation of liability

Temptime assumes no responsibility for any loss or claims by third parties which may arise through the use of this product. In particular, users must not use the product in any manner not specifically indicated by Temptime. Temptime shall not be held liable for improper use of this product. This document is non-contractual and subject to change without notice.

© 2017 Temptime. All rights reserved. Temptime, the Temptime logo, EDGEConnect Mobile, Temptime EDGE, and EDGECloud are the exclusive property of Temptime. All other brands mentioned are the property of their respective owners. Specifications subject to change without notice

Table of Contents

1 Notices and safety	2
1.1.1 Safety instructions	2
1.1.2 Disclaimer and limitation of liability	2
2 Introduction	6
2.1 Welcome to EDGEConnect™	6
2.1.1 Terminology used in this document	6
2.1.2 Browser requirements	6
2.1.3 EDGEConnect™ feature highlights	7
2.1.4 General overview	8
2.2 Getting started	9
2.2.1 Creating your EDGEConnect™ account	9
2.2.2 21-CFR-11 compliance	13
2.2.3 Running the setup Wizard	14
2.3 Presentation of the dashboard	18
2.3.1 Main menu	18
2.3.2 Sensor view	19
2.3.3 Global view	21
2.3.4 Map view	22
3 Managing users	25
3.1 Adding a new user	25
3.2 Editing a user profile	27
3.2.1 Using the Search filter	28
3.2.2 Changing a user password	29
3.2.3 Forcing the user to change their password	29
3.2.4 Uploading a profile picture	31
3.2.5 Profile overview	31
3.2.6 Updating your company account	32
3.3 Adding a new department	34
4 Managing equipment, sensors, and receivers	36

4.1	Adding equipment.....	36
4.2	Pairing a sensor with equipment	37
4.3	Managing sensors	40
4.3.1	Enabling or disabling a module:.....	40
4.3.2	Changing a module on your equipment	41
4.4	Configuring a LoRa Gateway receiver	42
4.4.1	Configuring a receiver	43
4.5	Viewing equipment details	44
	The Equipment details screen contains several zones with information about your equipment.....	44
4.5.1	Viewing graph details.....	45
4.5.2	Viewing collected data.....	47
4.6	Reading data	48
4.6.1	Viewing sensor readings	49
4.6.2	Creating reports	51
4.6.3	Viewing multiple sensor graphs.....	51
4.6.4	Event list.....	56
4.6.5	Settings Status.....	57
4.7	Creating Equipment types.....	58
4.8	Creating Equipment Groups.....	59
5	Alarms & Alerts.....	60
5.1	Viewing alarms	60
5.1.1	Alarms highlighted in the dashboard.....	60
5.1.2	Viewing alarm details.....	61
5.2	Sending e-mail alerts to Call Groups.....	63
5.2.1	Creating a Call Group	63
5.2.2	Configuring an alert rule	64
5.2.3	Configuring periods without alerts	65
5.3	Acknowledging alarms	68
5.3.1	Adding acknowledgement reasons.....	68
5.3.2	Acknowledging an alarm.....	69
5.4	Alarm values and codes	71
6	Equipment Life Management	72

6.1	Adding a comment	72
6.2	Identifying equipment.....	74
6.3	Maintenance / interventions	75
7	Getting help	76
7.1	Updating your license	76
7.2	Contacting technical support	76
7.3	User manual	77
8	Appendix – Frequently Asked Questions.....	78
9	Index	79

2 Introduction

2.1 Welcome to EDGEConnect™

Congratulations and thank you for choosing EDGEConnect. This web application enables you to manage and monitor the Temptime EDGE W-200 (with LoRaWAN™ long-range wireless connectivity) wireless sensor modules.

These sensor modules automatically collect data from integrated or connected sensors, and transmit that data to the Cloud. The EDGE W-200 modules belong to the latest generation of EDGE wireless modules for “Industrial Internet of Things”.

2.1.1 Terminology used in this document

Alarm	An alarm is a state that occurs when the system observes a sensor reading that is out-of-bounds, such as a temperature reading that is too high or too low with respect to programmed range limits. The system can notify users when alarms occur by sending alerts.
Alert	An alert is a notification that is sent by the system to users when the system observes an alarm condition or potential problem.
Equipment	The material or space that you are monitoring with a module
LoRaWAN	Very-long-range wireless communication protocol, generally with one single receiver installed per site. Range up to about 9 miles (15 km).
Module	Refers to EDGE W-200 datalogger device.
EDGECloud	Internet-based service on which data from modules is stored and accessed via the EDGEConnect™ application.

2.1.2 Browser requirements

Recommended browsers for using EDGEConnect™ are:

- Windows
 - Google Chrome version 54.0.x and later
 - Mozilla Firefox version 46 and later
 - Microsoft Internet Explorer version 11 and later

2.1.3 EDGEConnect™ feature highlights

EDGEConnect™ enables you to visualize your EDGE W-200 sensor status and data, with a complete management interface for configuration and system administration. Key application features include:

- Monitoring equipment and associated sensors
- Integrating data with Temptime EDGECloud service
- Managing data transmitted by Temptime EDGE W-200 modules
- Viewing overall system health
- Viewing detailed sensor readings, history, and more
- Configuring sensors
- Generating reports for events and settings
- Sending alerts when alarms are detected

2.1.4 General overview

The concept of EDGEConnect™ is based on managing sensors that are assigned to entities called “equipment”. Equipment refers to any assets (such as refrigerators and freezers), rooms, or locations in/on which sensors may be placed. The system gives you access to both sensors and equipment.

The general process for configuring EDGEConnect, as detailed in this User Guide, is as follows:

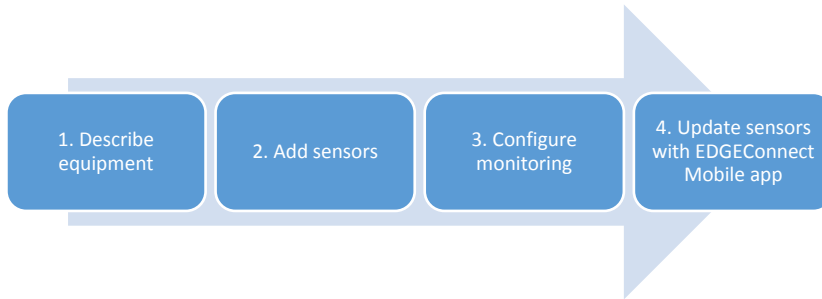


Figure 1 - Process overview

Understanding these four aspects is important for using EDGEConnect™. Here is a quick overview of these steps:

- 1. Describe equipment** The notion of equipment is the central principle for sensor monitoring with the EDGEConnect™ solution. This approach is based on the idea that you are likely to be more concerned with *the assets* you are monitoring, rather than the actual tool used to accomplish the task. For example, you monitor *equipment*, such as a cold room, refrigerator, deep freezer, or incubator. You therefore must add this equipment to your system.
- 2. Add sensors** That equipment is monitored by one or more sensor module (EDGE W-200) that take readings, such as temperature and humidity. You therefore need to add those sensors to your system.
- 3. Configure monitoring** Every piece of equipment may have different needs in terms of monitoring. Sensors therefore need to be configured to monitor different temperature ranges, at different reading frequencies, with different alert conditions, etc.
- 4. Update sensors** Once you have configured your sensor settings via EDGEConnect, you must transfer those settings to the actual EDGE W-200 modules. This is done using the EDGEConnect Mobile™ application running on your mobile device. EDGEConnect Mobile reads the EDGEConnect™ configuration from EDGECloud and allows you to update your modules via Bluetooth.

Please see the EDGEConnect Mobile™ application User Guide for more details. You may download EDGEConnect Mobile for free on the Apple App Store or Google Play.

EDGEConnect™ features a setup Wizard to help you get started, or you may choose to proceed manually through each step.

2.2 Getting started

In this section, we will describe how to:

1. Create your account and enter your voucher (activation) key for Cloud access.
2. Login to EDGEConnect™.
3. Create equipment and add a sensor to the equipment using the Wizard.
4. Adjust sensor monitoring settings.
5. Complete the configuration using the EDGEConnect Mobile application.




This section assumes that you have purchased a license voucher and that you have the number available.

Contact your sales representative for more information about vouchers, or visit www.Temptimecorp.com

2.2.1 Creating your EDGEConnect™ account

Start by creating your account on EDGEConnect™.

1. Login to the following address: <http://EDGEConnect.Temptimecorp.com/registration.php>
2. When you first access EDGEConnect, the application detects your Internet browser language automatically and displays the login window either in English (for all browser languages except French) or French (if the browser language is French). To change the application language, click on the  button and select the desired language from the pull-down menu:

The image shows a screenshot of the Temptime website's 'CREATE COMPANY ACCOUNT' form. The form is titled 'CREATE COMPANY ACCOUNT' and is set against a dark blue background. The form itself is white and contains several input fields. At the top left of the page is the Temptime logo with the tagline 'Improving Global Health'. At the top right, there is a language selection menu showing 'English' with a small flag icon. A blue arrow points to this menu. The form fields are as follows:

- Personal Information section:
 - Email (required, indicated by a red asterisk)
 - Password (6 characters min.) (required, indicated by a red asterisk)
 - Re-type Password (required, indicated by a red asterisk)
- Details section:
 - Last Name (required, indicated by a red asterisk)
 - First Name (required, indicated by a red asterisk)
 - Company Name (required, indicated by a red asterisk)

Figure 2 – Changing the application language

3. Then you must fill in the form to create your company account. Please note that most of the fields here are required, as indicated by the red * on the right-hand side.

Figure 3 – Fill in the fields to create your account

4. Enter your email address, password, name, company, and address information for your first user. This user will automatically have “Super Administrator” rights and may add and edit other system users at any time (Users → User Management)
5. Enter your voucher (activation) number in the last field on the screen, and then click on **Register**.

Figure 4 – Enter your voucher number in the last field on the form

Your account is created and a confirmation e-mail will be sent to the address you indicated.

6. The screen switches to the login screen. Sign in using the e-mail address and password you just created. If you forgot your password, click on **Forgot Password** and a new one will be sent to you.

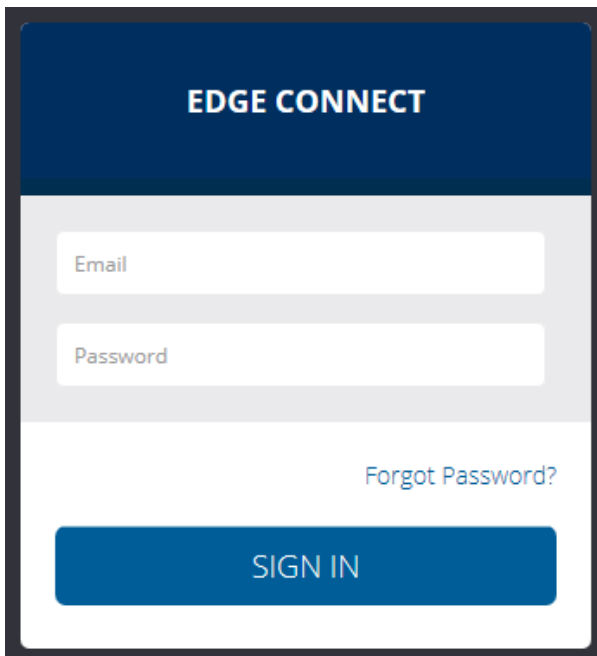


Figure 5 – Enter your e-mail address and password to sign in to EDGEConnect

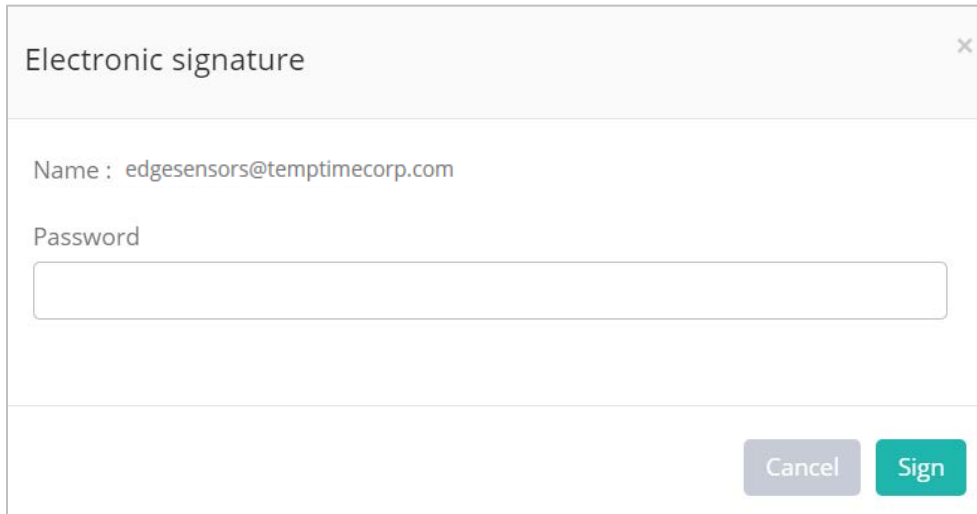
You are automatically logged in after creating the account.

2.2.2 21-CFR-11 compliance

EDGEConnect Web is compliant with an additional security feature to respect FDA 21 CFR part 11 regulations by protecting data from unauthorized access.

With this secure mode activated, any user action that results in the creation, modification, or deletion of data in EDGEConnect Web requires an electronic signature (see Figure 6 below).

This control appears on various screens in EDGEConnect Web when changes are made using the application. The user is prompted to enter his/her password and click on **Sign** to digitally confirm the operation.



The image shows a web dialog box titled "Electronic signature" with a close button (x) in the top right corner. Below the title bar, the text "Name : edgesensors@temptimecorp.com" is displayed. Underneath, the label "Password" is positioned above a rectangular input field. At the bottom right of the dialog, there are two buttons: a grey "Cancel" button and a teal "Sign" button.

Figure 6 – Electronic signature form



For security purposes, EDGEConnect Web automatically locks a user account after three successive failed attempts to sign an action. Only the system administrator can unlock the account, in the **User Management** page (by enabling the **Active user** checkbox). If you are not a system administrator, contact your administrator to unlock your account.

2.2.3 Running the setup Wizard

EDGEConnect™ includes a setup Wizard to assist in configuring your system. It runs through the steps to configure equipment and one or more associated sensors. You may run the Wizard at any time or proceeding by configuring equipment and sensors manually.



To add an EDGE W-200 module to your system, the wireless connection for that module must first be set up. Please see the User Manual provided with your modules for details on that step.

1. Login to your EDGEConnect™ system as described in the previous section.
2. Run the Wizard by clicking on the Wizard icon in the upper right-hand corner of the screen.

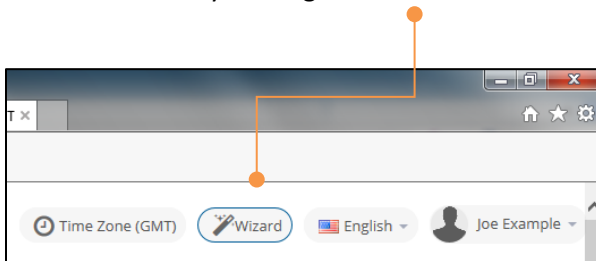


Figure 7 – Run the setup Wizard by clicking on the icon

3. Click on **Add Equipment** → **Next**.

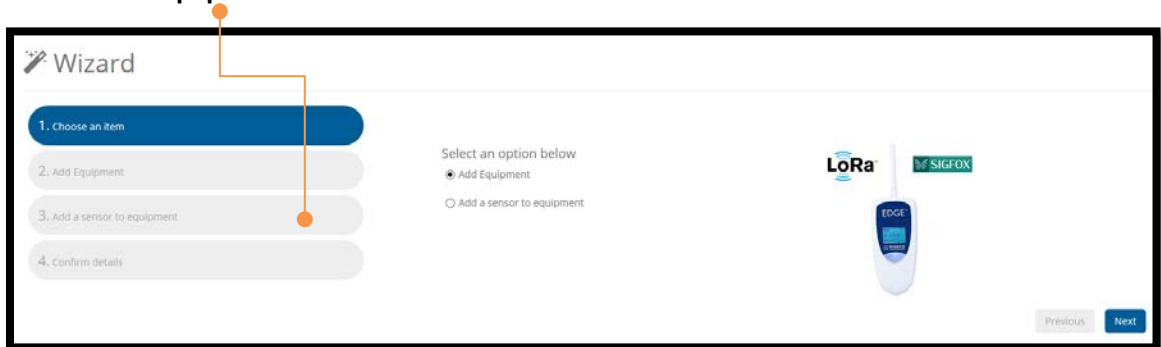


Figure 8 – Defining the equipment you will monitor

4. Fill in the fields about your equipment. Assign a **Name** to identify your equipment, and a serial number if it's convenient for you. In this screen, the **Equipment Type** pull-down may contain one or more options, if pre-configured during system installation. If the field does not contain any options, just leave it blank for now and fill it in later. You may also add the responsible Departments that will receive alerts for this equipment.

Wizard

1. Choose an item
- 2. Add Equipment**
3. Add a sensor to equipment
4. Confirm details

Name *

Equipment S/N

Equipment Type *

Departments

Figure 9 – Enter basic information to identify the equipment

5. Click on **Next** to confirm your equipment details.

Wizard

1. Choose an item
2. Add Equipment
3. Add a sensor to equipment
- 4. Confirm details**

Equipment to add
refrigerator

Sensor to add
Select...

Figure 10 – Confirm adding the equipment

6. Click **Finish** if correct.
7. Return to Step 1 and click on **Add a sensor to equipment** → **Next** to add your first sensor to the equipment you just added.

Wizard

1. Choose an item
2. Add Equipment
- 3. Add a sensor to equipment**
4. Confirm details

Equipment Name

Serial Number *

Sensor Type *

Reading Interval *

Figure 11 – Adding a sensor module to the system with the Wizard

- Click in the **Serial Number** field and enter the serial number on the back of your EDGE W-200 module. At this point the application confirms the existence of your module in its database, as confirmed here by the green check mark:

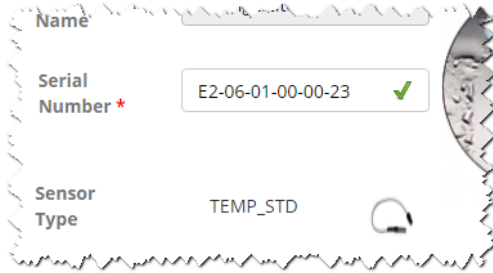


Figure 12 – The system confirms the serial number and sensor type



The system recognizes the type of sensor on the module based on its serial number. If you enter an incorrect serial number, a red cross and an error message are displayed, and the Next button remains inactive. Check the number and try again. Contact technical support if the problem persists.

- Click in the **Reading Interval** field and select a time interval for reading the sensor in the module (from 10 minutes to 24 hours).



Figure 13 – Assign a reading interval

10. Click on **Next** to confirm your details → click on **Finish**. We recommend that you read the EDGEConnect Mobile User Guide before performing the following operation.

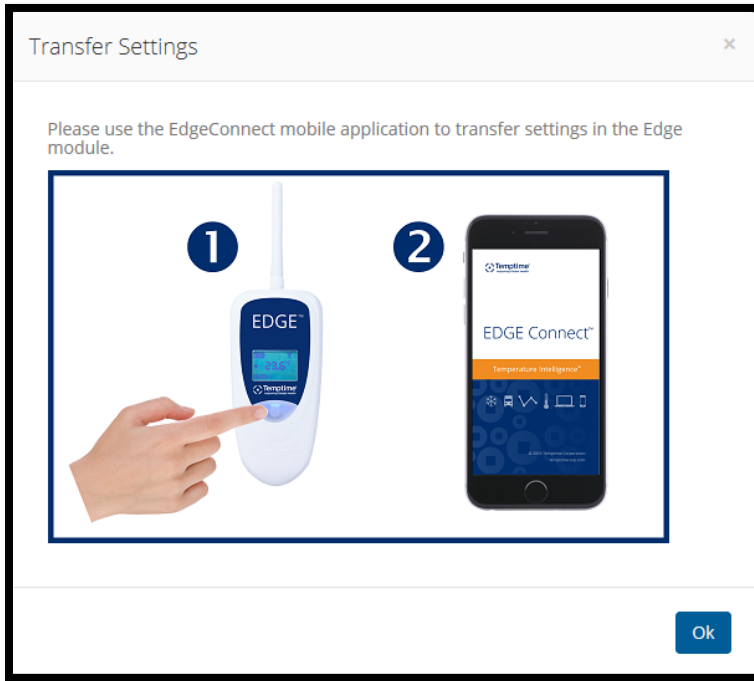


Figure 14 – Use EDGEConnect Mobile to transfer your settings via Bluetooth

11. If you look at the Equipment you just created, before using EDGEConnect Mobile to transfer settings, you will see that the Equipment is shown as **Disabled**, as shown here:

Status	Equipment Name	Equipment Type	Connected Sensors	Connected Department(s)	Edit.
Disabled	refrigerator	Ambient		Admin	
● Sensor Name: E20601000015_TEMP		Disabled	Last Reading: N/A	Last Reading Date: N/A	

Figure 15 – The sensor is shown as Disabled

At this point, you must use EDGEConnect Mobile on your mobile device to update the module's configuration. That process starts datalogging on the module. Press F5 in your browser to update the EDGEConnect™ display, and the above screen changes, as shown here:


Status	Equipment Name	Equipment Type	Connected Sensors	Connected Department(s)	Edit.
OK	refrigerator	Ambient		Admin	
● Sensor Name: E20601000049		OK	Last Reading: N/A	Last Reading Date: N/A	

Figure 16 – The sensor is shown as OK when setup is complete

2.3 Presentation of the dashboard

The EDGEConnect™ dashboard is the main point of entry into your monitoring system. The screen opens by default when you first login to the system. The dashboard shows key information at a glance, and gives you direct access to details, settings, and other operations.

2.3.1 Main menu

The main menu bar is located on the left-hand side of the screen. Use these links to access all EDGEConnect™ features. You may click on the  icon to fold or unfold the menu to save space visually.

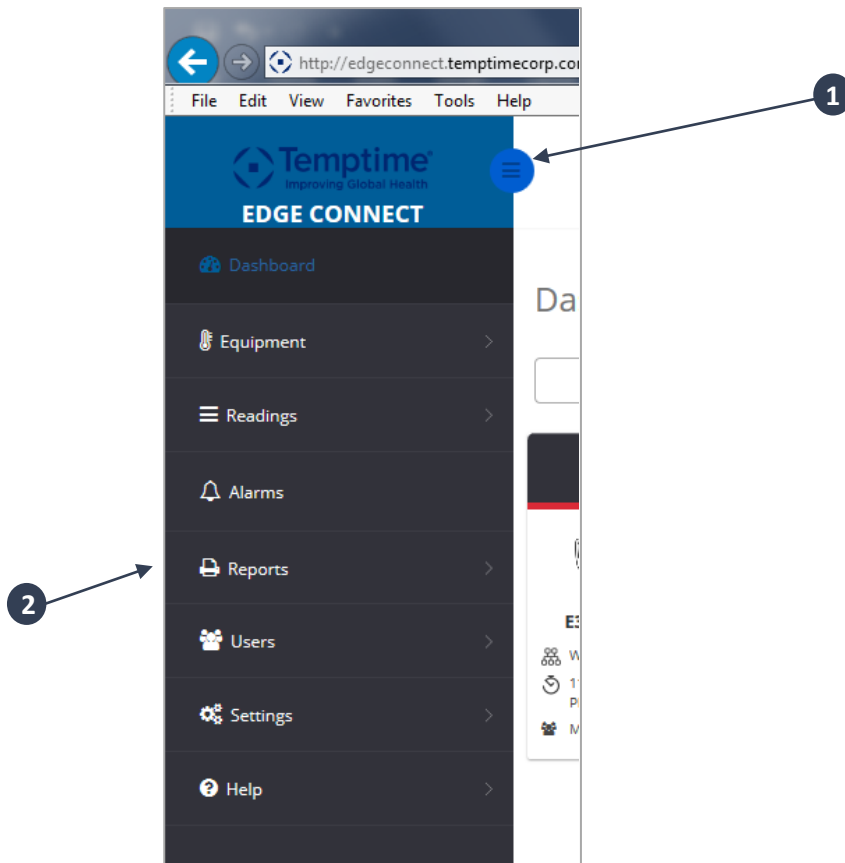


Figure 17 – Main menu bar with access to application features

Item	Description
1	Minimize or expand the menu
2	Main menu bar

2.3.2 Sensor view

The dashboard is where you can see a summary view of your sensors. It is available in three different views: Sensor, Global, and Map. To see your sensor modules displayed visually with their individual details, select **Sensor view**, as shown below.

Tiles are sorted to show modules with alarms first. You may click on a sensor to view the details.

You may apply a filter to limit the list of sensors displayed here by entering a department name in the **text box on the left side** of the screen. As you type, a drop-down list displays possible matches:

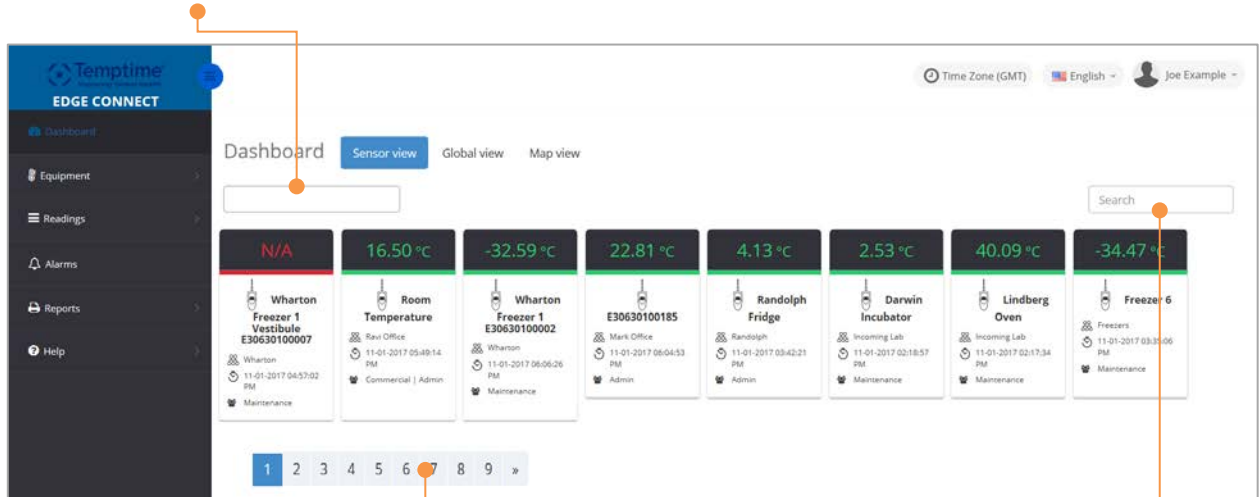


Figure 18: Sensor view of dashboard

The **Sensor view** screen also contains a **Search** field on the right that you may use to filter the list of sensors. Simply start typing the text or the temperature you want to use as a filter in the field. The list adjusts to display only those items containing that text or reading value.

Click on a **page number** or use the navigation arrows at the bottom of the screen to move from one page to another.

Each sensor shows the latest reading (color coded), plus various information:

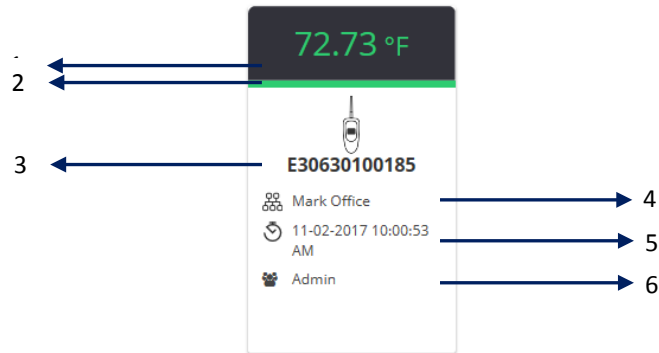
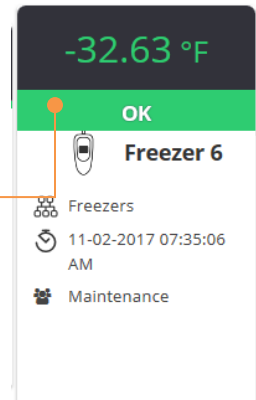



Figure 19 – Color coding indicates alarm status

- Latest reading with color coding showing the sensor status:
 - Green:** the sensor is enabled and functioning within programmed high and low alarm limits
 - Red:** high and low alarm limit exceeded or faulty sensor
 - Orange:** low battery or radio transmission issues
 - Grey:** the sensor is currently disabled
- Hover the mouse over the tile to display the alarm status.
- Module serial number
- Sensor name
- Date and time of latest reading
- Department containing the sensor



	<p>Click on a sensor to open the equipment management page containing the details of that sensor (see <i>Managing equipment</i>, pg. 36)</p>
-------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------

2.3.3 Global view

The second dashboard view is called **Global view**. Choose this view to see a summary overview of your system, with direct access to common features. Various indicators show key system information, including errors, alerts, and system health.

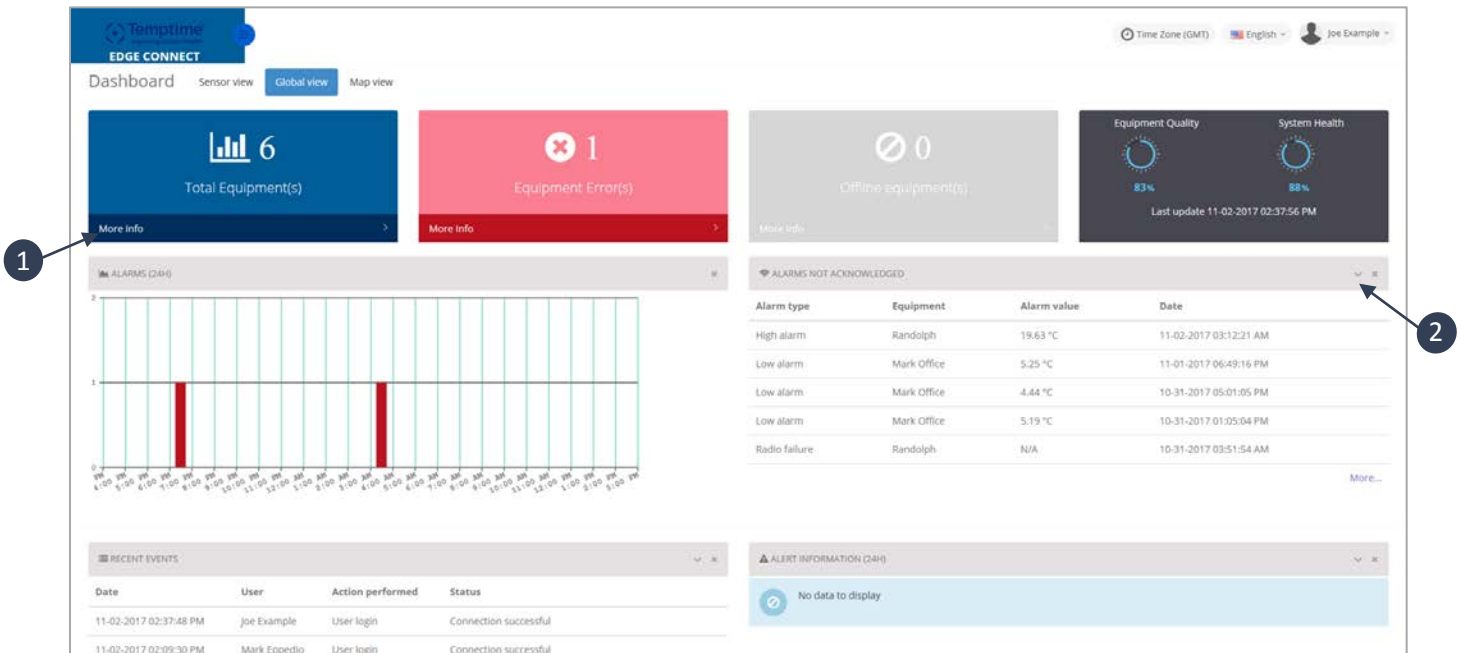


Figure 20 – Global dashboard view with system overview

Item	Description
1	Click on More info for direct access to the list or function.
2	You can remove or expand certain zones by clicking on the “V” or “X” icons in the corner.

The **Global view** dashboard contains the following items:

- Total Equipment** The total number of configured pieces of equipment in your system. Click on **More info** for direct access to the list.
- Equipment Errors** The number of pieces of equipment currently with alarms. Click on **More info** for direct access to the list.
- Unmonitored Equipment** The number of pieces of equipment you have configured, but for which no sensor has been assigned.
- Equipment Quality** Percentage of functional equipment vs. total equipment installed and activated
- System Health** Percentage of sensors online with no alarms vs. total sensors.

Alarms (24H)	The number of alarms that have occurred over the past 24 hours.
Alarms not acknowledged	Alarms that have been recorded by the system, but which have not yet been cleared or explained. Click on More for direct access to the acknowledgment screen.
Recent events	The most recent events listed in the Audit Trail (Event List). Click on More for direct access to the complete list.
Alert information	A list of recent alerts/notifications that have been sent out by the system.

2.3.4 Map view

The **Map** view on the dashboard allows you to visualize all of your sensors on a Google® map.

The view provides two levels of detail:

- Region map (if several groups of sensors are detected)
- Street map

Region map

This mode shows groups of modules per region. Colored circles identify their location on a geographical map.

You may filter your sensors by entering a department name in the **Select Department(s)** field.

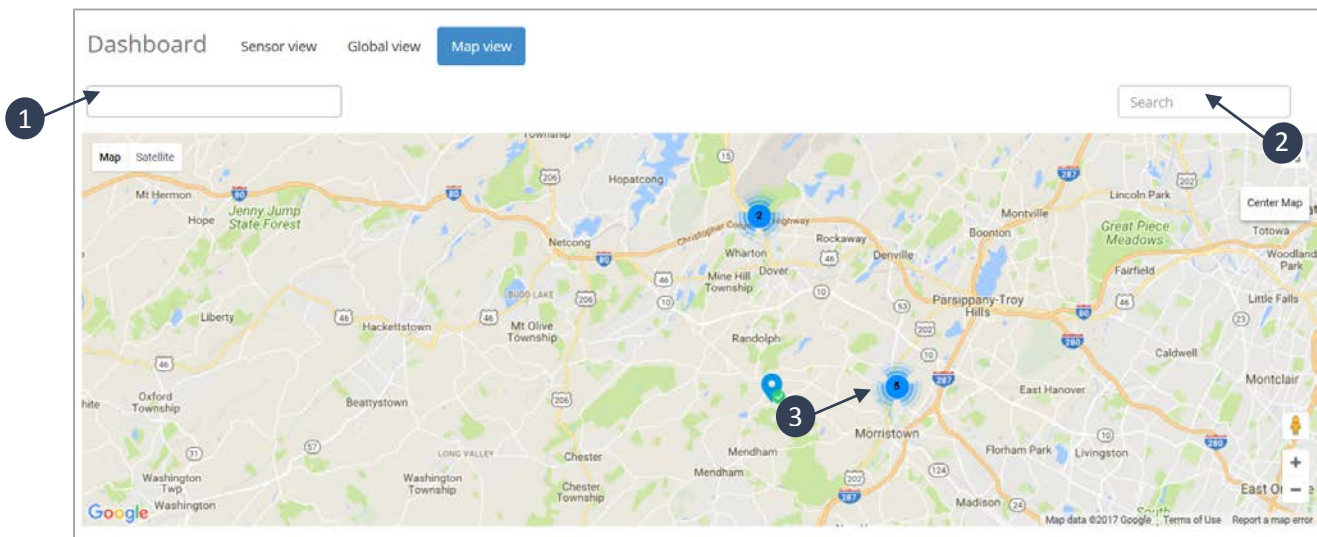


Figure 21 – Region map with groups of modules

Item	Description
1	Select Department(s) field to filter list of sensors. As you type, a drop-down list displays possible matches.
2	Enter text in Search field to also filter list of sensors. Simply start typing the text or the temperature you want to use as a filter in the field. The list adjusts on-the-fly to display only those items containing that text or reading value.
3	Clicking on a colored circle automatically switches the view to the street map.

Street map

This zoom level shows the precise location of your modules, represented as a blue marker on a street map.

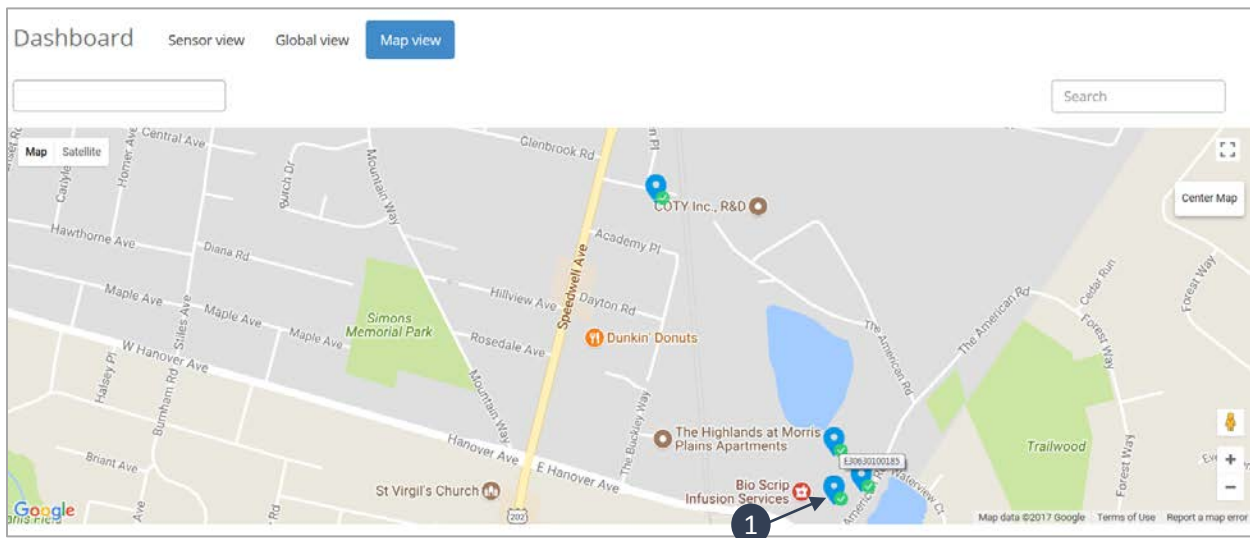


Figure 22 – Geolocation of modules on the street map

When many sensors are very close to each other they are consolidated to one marker indicating the number of sensors.

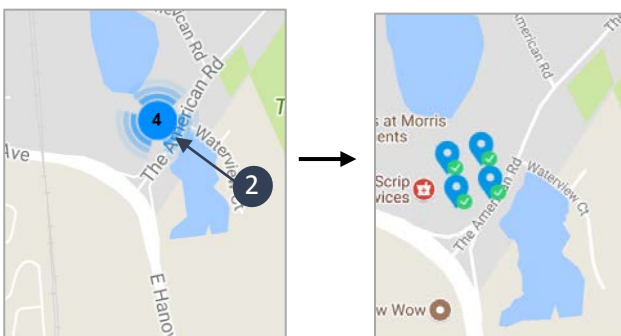



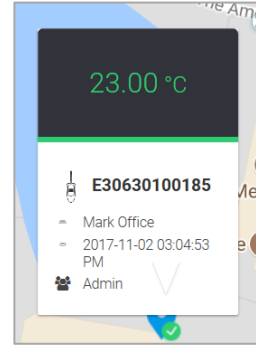


Figure 23 – Ungroup sensors on Street view

The colored icon next to each sensor indicates its current status:

-  Sensor enabled and functioning within programmed high and low alarm limits (if configured)
-  High / low alarm limit or faulty sensor
-  Low battery or loss of radio communication

Thumbnail contains a summary of information about the selected module. You can see the latest temperature or humidity reading and check the device status.



Click on the thumbnail to get directed to the Sensor Management page (see Section 4.3 Managing Sensors).

Item	Description
1	Hover the mouse over a module to view the serial number or name of the device
2	Click on the group marker to ungroup sensors and identify them more clearly on the map:
3	Clicking on a blue marker displays a thumbnail

3 Managing users

When you first create your company in EDGEConnect, as described in section 2.2.1 Creating your EDGEConnect account, you also create the first user. That user has “Super Administrator” rights, and is thus entitled to create additional users as well as manage all aspects of the system.

3.1 Adding a new user

While logged in with a Super Administrator level, follow these steps to add a new user in EDGEConnect:

1. Select **Users** → **User Management** → **New+**

User	User Profile	Settings
Last Name: <input type="text"/>	<input type="radio"/> Super Administrator	<input checked="" type="checkbox"/> Active user
First Name: <input type="text"/>	<input type="radio"/> Administrator	Temperature settings: <input type="text" value="°C"/>
Departments: <input type="text"/>	<input checked="" type="radio"/> View and Acknowledge	Time Zone: <input type="text" value="GMT"/>
Login: <input type="text" value="email"/>	<input type="radio"/> View Only	Language: <input type="text" value="English"/>
		Expiration Date: <input type="text"/>
		Password: <input type="text"/>
		Confirm Password: <input type="text"/>
		<input type="button" value="Add"/> <input type="button" value="Cancel"/>

Figure 24 – Fill in all the fields to create a new user

2. Enter the various information to identify the user:

First Name	The user’s name, which is displayed in the upper right-hand corner of the screen when logged in.
Last Name	The user’s name, which is displayed in the upper right-hand corner of the screen when logged in.
Department	Select an option from the pull-down menu. Note: to add a Department to this list, select Users → Departments → New , as described in section 3.2.6 Adding a new department
E-mail address	The user’s e-mail address is used to login to the system and to receive e-mail sent by the system, such as for alerts and various confirmations.
User Level	Super Administrator – These users have full visibility to all equipment and sensors. Additionally, they have complete access rights to all features, including creating and maintaining individual profiles for the people who use the application or handle alerts Administrator – By default, same as Super Administrator except that these users only have visibility and access to the equipment and sensors assigned

to their department. Can be modified if necessary by an authorized support technician.

View and Acknowledge – Can see equipment and sensors, and handle alarms. Does not have access to settings screens.

View only – Can see equipment and sensors. Does not have access to alarms or settings screens.

Active user Check the checkbox to determine whether this user can login to the system.

Password Enter the password in both fields (which must match).

Expiration date You must set a date at which this user account expires.

All fields in the upper part of the User Details screen are required.

3. Click on **Add** to create the user or on **Cancel** to return to the previous screen.

3.2 Editing a user profile

Follow these steps make changes to any of the details for a user in your EDGEConnect™ system:

1. Click on **Users** → **User Management**
2. Click on the line containing the user you want to edit.

Last Name	First Name	Department	User Profile	Login	Status
SMITH	JOHN	Admin	Super Administrator	support@temptimecorp.com	Active
JONES	Jane	Admin	View and Acknowledge	jane.jones@gmail.com	Active
SMITH	Michael	Admin	Administrator	michael.smith@gmail.com	Active
WILLIAMS	Chad	Admin	Super Administrator	chad.williams@gmail.com	Active

Showing 1 to 4 of 4 entries

Previous 1 Next

Figure 25 – Click on a line to open that user's details

In the **User Details** window:

3. Make the desired changes and then click on **Save**, or on **Cancel** if you do not want to save your changes.

Q USER DETAILS: EXAMPLE JOE

User

Name: Example
First Name: Joe
Departments: Admin | Maintenance | Commercial
Login: edgesensors@temptimecorp.com
Call Group: Engineering

User Profile

Super Administrator
 Administrator
 View and Acknowledge
 View Only

Settings

Active user
Temperature settings: °C
Time Zone: GMT
Language: Englis
Expiration Date: 05-16-2018
Password: Modify
Back Office: Reset Password

Contact Details

Voice call mode

Day phone number:
Night phone number:
Weekend phone number:
Acknowledgement code:

Text mode

SMS phone number:

Save Cancel

Figure 26 – Details of the selected user

When editing an existing user's details:



1. You cannot change the user's e-mail address, which is also used to login to the system.
 2. For reasons of traceability, a user may not be deleted from the database. A user can only be deactivated.
 3. Any changes you make will be taken into account the next time the user disconnects/reconnects to the system.
-

3.2.1 Using the Search filter

The User Management screen contains a **Search** field that you may use to filter the displayed User List.

1. Simply start typing the text you want to use as a filter in the field. The list adjusts on-the-fly to display only items containing that text.
2. For example, to see all the users with the word Chris anywhere in their information details, start typing "Ch" in the **Search** field.

Showing 10 entries

Search: Ch

Last Name	First Name	Department	User Profile	Login	Status
SMITH	Michael	Admin	Administrator	michael.smith@gmail.com	Active
WILLIAMS	Chad	Admin	Super Administrator	chad.williams@gmail.com	Active

Showing 1 to 2 of 2 entries (filtered from 4 total entries)

Previous 1 Next

Figure 27– The search filter limits the number of items displayed in lists

3. Clear the active filter by deleting the text in the field.



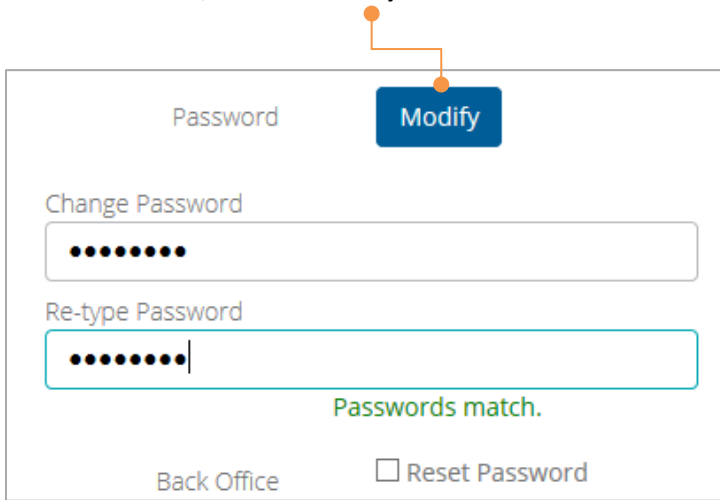
The Search feature is available on various screens in EDGEConnect, with the same behavior as described here.

3.2.2 Changing a user password

Who can change a password? Users can change their own passwords. Users with Super Administrator and Administrator rights can also change other people’s passwords.

To change a password:

1. Click on **Users** → **User Management**
2. Under **Password**, click on **Modify**



The screenshot shows a web interface for changing a password. At the top, there is a 'Password' label and a blue 'Modify' button. Below this is a 'Change Password' section with two input fields. The first field is labeled 'Change Password' and contains masked characters. The second field is labeled 'Re-type Password' and also contains masked characters. Below the second field, the text 'Passwords match.' is displayed in green. At the bottom left, there is a 'Back Office' link, and at the bottom right, there is a 'Reset Password' checkbox.

Figure 28 – Changing a user’s password

3. Enter the new password twice so that “Passwords match” is displayed beneath the fields.
4. Click on **Save** to save your changes, or on **Cancel** to return to the previous screen.

3.2.3 Forcing the user to change their password

You may also force the user to change his/her password upon their next login. To do this:

1. Click on **Users** → **User Management**, then select a user from the list.
2. Under **Back Office**, click on **Reset Password**



Figure 29 – Changing a user’s password

3. Click on **Save** to save your changes, or on **Cancel** to return to the previous screen.
4. The regular login screen is displayed the next time the user logs in, and then he/she is prompted to change the password as shown here:

The screenshot shows a mobile application interface for 'EDGE CONNECT'. At the top, there is a dark blue header with the text 'EDGE CONNECT' in white. Below the header, a white box contains the message 'You must change your password.' in green text. Underneath this message is a light gray background area containing three input fields: a red-bordered field for the current password (with a vertical cursor), a white field labeled 'New Password', and another white field labeled 'Confirm New Password'. At the bottom of the screen, there are two buttons: a blue 'Change Password' button and a gray 'Cancel' button.

Figure 30 – Forcing the user to change password upon next login

5. The user must enter the current password, a new password, and password confirmation.
6. The change is taken into account if the user clicks on **Change Password**, and the regular login screen is displayed. If he/she clicks on **Cancel**, the regular login screen is displayed, but this user cannot login again without changing the password.

3.2.4 Uploading a profile picture

EDGEConnect™ can personalize your display with a profile picture when you are logged in to the system. The picture is shown in the upper right-hand corner of the screen:



Figure 31 – Customize the display with your profile picture

Picture recommendations:

- 500 x 500 pixels maximum
- Up to 2 MB
- JPG or PNG format

To update your profile picture:

1. Click on your user name in the upper right-hand corner of the screen.
2. Select **Settings** → **Choose File**
3. Browse to locate the image you want to use → **Open**
4. The image is uploaded and displayed in EDGEConnect™.

3.2.5 Profile overview

To view your general profile information:

1. Click on your user name in the upper right-hand corner of the screen.
2. Select **Profile**
3. This screen contains several sections with your information:
 - Overview** Shows your login name, department, and user level, along with a list of recent operations.
 - Settings** You may upload your profile picture here.
 - Contacts** Your address and contact information.
 - Views** Lists the features to which you have access in EDGEConnect™.



If you want to edit this information, select **Users** → **User Management**

3.2.6 Updating your company account

To update your company account the Super Administrator must:

1. Click on user name in the upper right-hand corner of the screen
2. Click on **Settings**
3. This screen contains several sections for your company account:

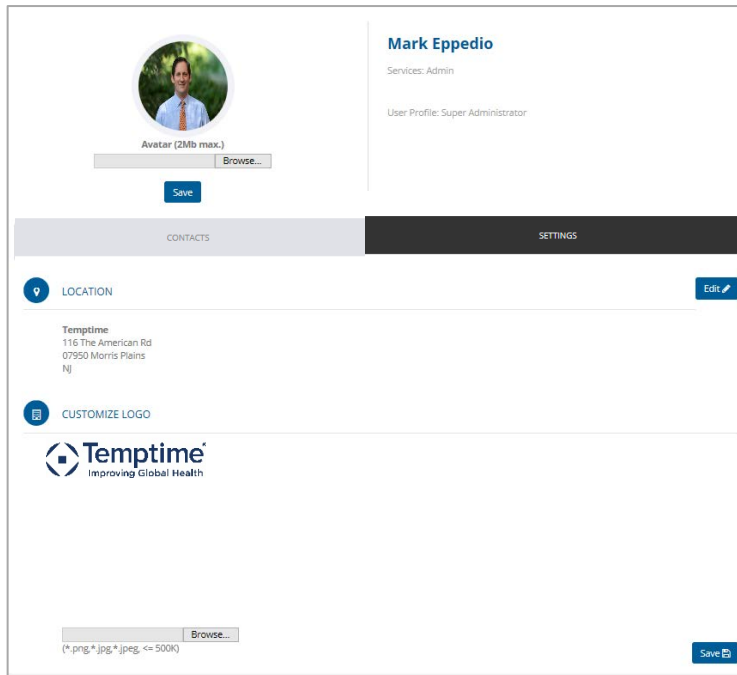
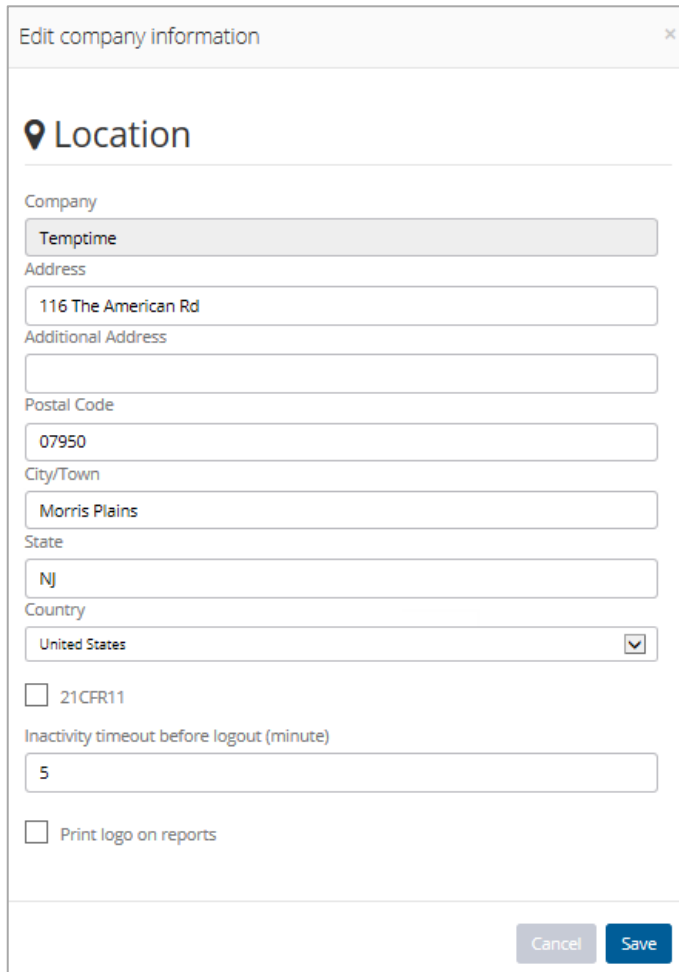


Figure 32 – Updating your company account

4. Click on **Edit** and make the desired changes in the form that appears:



The screenshot shows a web form titled "Edit company information" with a close button (x) in the top right corner. The form is divided into sections. The first section is "Location", indicated by a location pin icon. Below this, there are several input fields: "Company" (with "Temptime" entered), "Address" (with "116 The American Rd" entered), "Additional Address" (empty), "Postal Code" (with "07950" entered), "City/Town" (with "Morris Plains" entered), "State" (with "NJ" entered), and "Country" (a dropdown menu with "United States" selected). There are two checkboxes: one for "21CFR11" (unchecked) and one for "Print logo on reports" (unchecked). At the bottom right, there are "Cancel" and "Save" buttons.

Figure 33 – Changing your company information

- | | |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inactivity timeout before logout (minute) | Enter the period of time (in minutes) after which EDGEConnect will lock the user account if no activity occurs in the application. |
| Print logo on reports | Check this box to insert a logo on reports generated by EDGEConnect. By default, the Temptime logo is included on reports. To personalize this logo, see the next section. |

To change the logo that appears on reports generated by EDGEConnect the Super Administrator must:

- Click on the user name in the upper right-hand corner of the screen.
- Click on **Settings**.
- In the **Customize logo** area, click on **Choose file**.
- Locate the image that you want to use then, click on **Open**.
- The selected image file is loaded and appears in EDGEConnect.



For optimal display quality, the image size should not exceed 500 Kb.

5. Click on **Save** to save your changes.

3.3 Adding a new department

Departments are used to group people together logically, purely for your reference. A user may belong to more than one department if necessary. Likewise, when creating equipment, you may also assign it to more than one department. This information is particularly useful for organizing your system.

To add a new Department to your system:

1. Select **Users** → **Departments** → **New+**

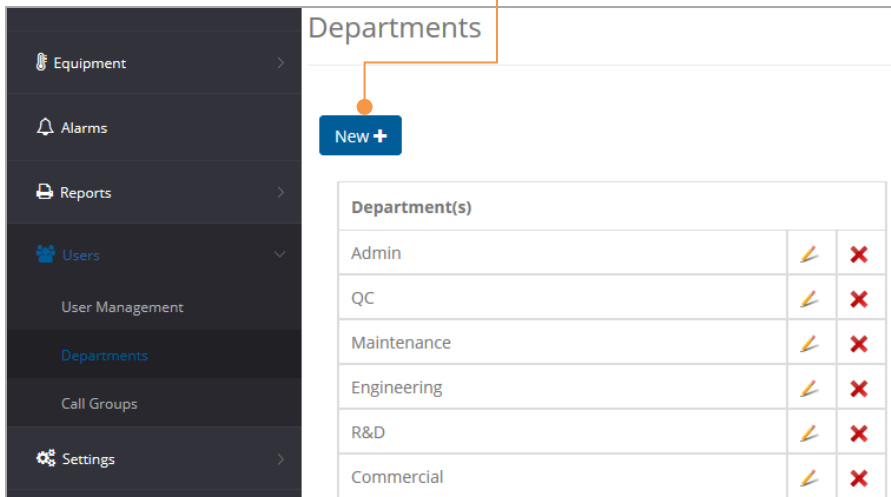
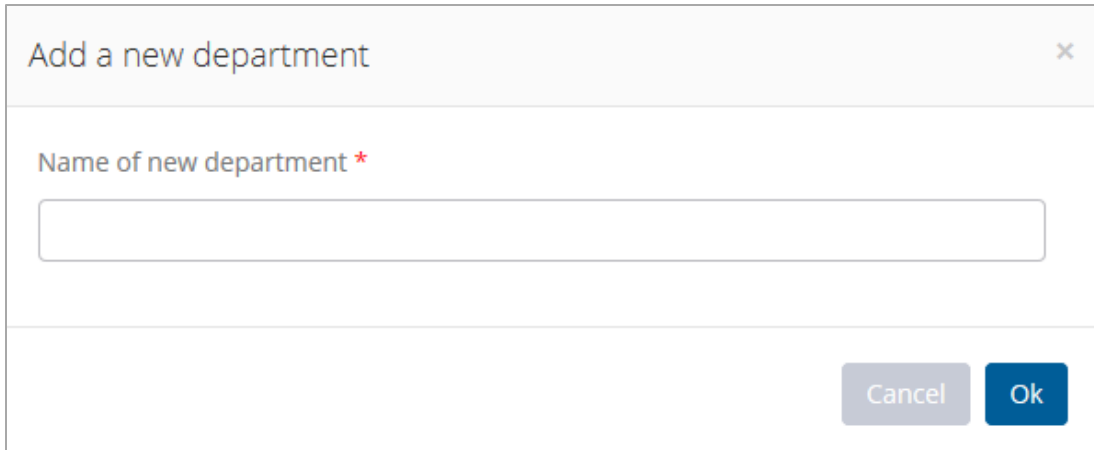


Figure 34 – Adding a new department

2. Type in a name for the new department and click on **OK**.



The image shows a dialog box with a title bar that says "Add a new department" and a close button (X) in the top right corner. Below the title bar is a text input field with the label "Name of new department *". The input field is currently empty. At the bottom right of the dialog box, there are two buttons: a grey "Cancel" button and a blue "Ok" button.

Figure 35 – Enter a name for the department

The new department name is then available for you to use when entering User Details (**Users** → **User Management**).

4 Managing equipment, sensors, and receivers

4.1 Adding equipment

As mentioned in the introduction, the term “equipment” in EDGEConnect™ refers to the chambers, refrigerators, tanks, enclosures, and other spaces you may choose to monitor with the EDGE W-200 sensors.

This chapter describes how to manage the equipment in your EDGEConnect™ system, and how to assign sensors to that equipment.

If you ran the Wizard to get started, you have already created your equipment and assigned a sensor to it. You may also add equipment manually and assign sensors at any time.



Before adding equipment as described here, select **Equipment** → **Equipment Types** → **New**, and add at least one type of equipment.

Follow these steps to add equipment (pairing a sensor is covered in the next section):

1. Click on **Equipment** → **Equipment Management** → **New**

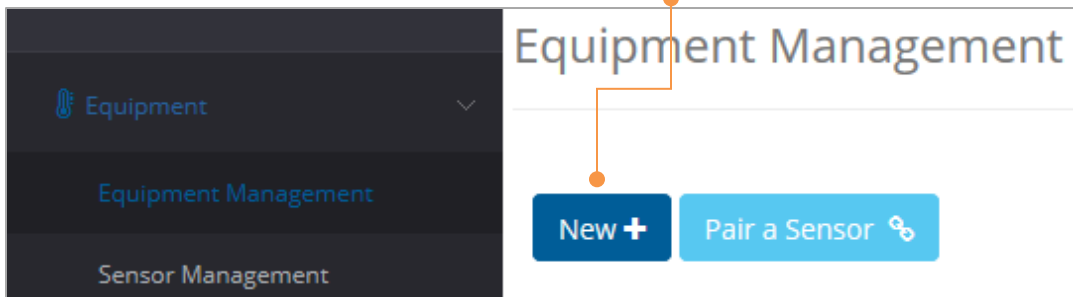


Figure 36 – Enter a name for the department

2. Fill in the equipment details as necessary:

Name	Enter an appropriate name for your equipment. This name will be displayed in all lists
Serial number	(optional) For your reference, you may enter the equipment’s serial number.
Department(s)	Users are assigned to one or more departments. You must assign these departments to your equipment using the pull-down menu. Note: to add a department to this list, select Users → Departments → New .
Equipment type	Select a type of equipment from the pick-list.

Photo For visual reference to this equipment, you may click on **Choose File** to upload a photo (optional). Then browse to locate the file and click on **Open** to confirm.

3. When you click on **Add** to create the new equipment, you will be asked if you want to add a sensor for that equipment. Click on **OK** or **Cancel** depending on what you want to do.
 - If you cancel: you can add one or more sensors later.
 - If you click on OK, the sensor pairing screen opens automatically.Both options are described in the next section.

4.2 Pairing a sensor with equipment

“Pairing” is the process of assigning a specific sensor to monitor a specific piece of equipment. You may access the pairing screen either after adding equipment as described in the previous section or by clicking on **Equipment** → **Equipment Management** → **Pair a sensor**

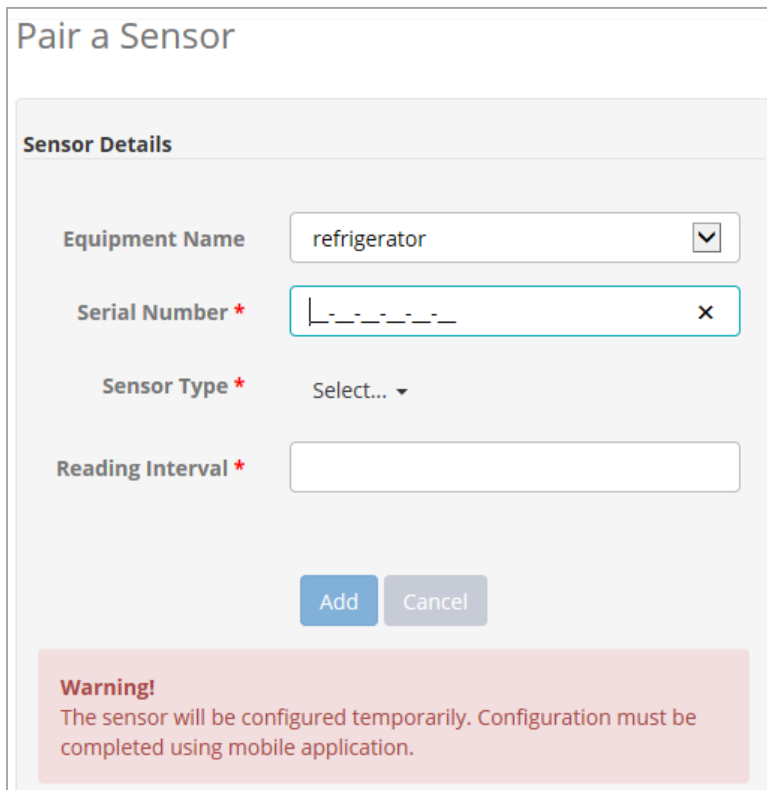


Figure 37 – Enter sensor details to pair it with equipment

1. For **Equipment Name**, use the pull-down menu to select the equipment to be monitored.
2. Click in the **Serial Number** field and enter the serial number provided on the back of your EDGE W-200 module. The application confirms the serial number, as indicated by the green check mark on the right-hand side of the field.

The system recognizes the type of sensor on the module based on its serial number. If you enter an incorrect serial number, a red cross and an error message are displayed, and the Next button remains inactive. Check the number and try again. Contact technical support if the problem persists.

3. Click in the **Reading Interval** field and use the pick-list to configure the frequency with which the module reads its sensor.
4. Click on **Add** to complete the pairing, or on **Cancel** to exit this screen without saving changes.

<input type="checkbox"/>	Equipment	Sensor Name	Sensor Type	Connected Department(s)	Serial Number	State of sensor	Edit.	Del.
<input type="checkbox"/>	Test	E20630000016	PT100	Engineering Maintenance QC Commercial Admin R&D	E20630000016	Enabled		

Figure 38 – Sensor paired with equipment

5. To complete the configuration (before updating the module using EDGEConnect Mobile on your mobile iOS or Android device), click on the checkbox next to the equipment name → **Set Config.** Fill in the fields according to your needs:

- Low Limit / High Limit** Target range
- Low and High Limit Delay** Time the module can spend outside the target range before issuing generating an alarm
- Reading interval** Frequency at which the sensor is read (from 10 minutes to 24 hours)
- Send if already...** Not implemented

Set configuration
×

Low Limit:

Low Limit Delay:

High Limit:

High Limit Delay:

Reading Interval: *

Send if already has an alarm?

1 sensor(s) will be updated with this configuration. Continue?

Restore default
Cancel
Set configuration

Figure 39 – Configure all datalogging parameters for your module

- At this point, you must use EDGEConnect Mobile on your mobile device to update the configuration in the module's memory (detailed in the *EDGEConnect Mobile User Guide*).
- In summary, the EDGEConnect Mobile app screen on the left below shows that the module started without any configuration but is configured in the EDGECloud. Then, after pushing the changes you just made in the EDGEConnect™ web application, by tapping **Push to module**, the module is configured as desired and datalogging is started. This is verified by seeing the new configuration details in the left column of the app.



Figure 40 – Updating settings on EDGE sensor module with EDGEConnect Mobile application

- Return to the EDGEConnect™ web application, and press F5 in your browser to update the display. The equipment, which was previously **Disabled**, now shows **Enabled**.

<input type="checkbox"/>	Equipment	Sensor Name	Sensor Type	Connected Department(s)	Serial Number	State of sensor	Edit.	Del.
<input type="checkbox"/>	Test	E20630000016	PT100	R&D Engineering Maintenance QC Commercial Admin	E20630000016	Disabled		

[Press F5]

<input type="checkbox"/>	Equipment	Sensor Name	Sensor Type	Connected Department(s)	Serial Number	State of sensor	Edit.	Del.
<input type="checkbox"/>	Test	E20630000016	PT100	Engineering Maintenance QC Commercial Admin R&D	E20630000016	Enabled		

Figure 41 – Updating settings with EDGEConnect mobile application

At this point, your module is now up and running with the settings you configured.

4.3 Managing sensors

You may use the **Sensor management** window (accessible directly from the dashboard) to enable, disable, or replace an EDGE sensor.

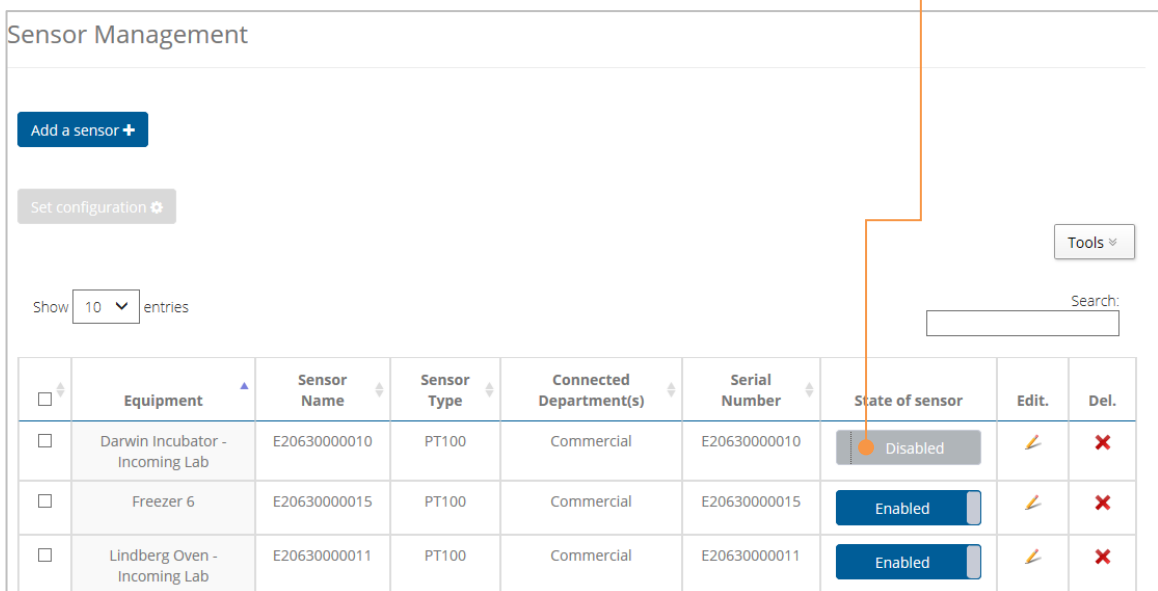
4.3.1 Enabling or disabling a module:

1. Click on **Equipment** → **Sensor Management**.
2. Each sensor appears in the table with a toggle button labeled **Enabled** or **Disabled**, along with the sensor's status indicated in color:



Figure 42 – Sensor activation/deactivation button

3. Click on this button to enable a disabled sensor or to disable an enabled sensor.



Sensor Management

Add a sensor +

Set configuration ⚙

Show 10 entries

Tools ▾

Search:

<input type="checkbox"/>	Equipment	Sensor Name	Sensor Type	Connected Department(s)	Serial Number	State of sensor	Edit.	Del.
<input type="checkbox"/>	Darwin Incubator - Incoming Lab	E20630000010	PT100	Commercial	E20630000010	Disabled	✏	✖
<input type="checkbox"/>	Freezer 6	E20630000015	PT100	Commercial	E20630000015	Enabled	✏	✖
<input type="checkbox"/>	Lindberg Oven - Incoming Lab	E20630000011	PT100	Commercial	E20630000011	Enabled	✏	✖

Figure 43 – Sensor management screen

When a sensor is disabled, data is no longer recorded to the database from that sensor.




If the sensor is enabled subsequently, data is once again recorded in the database. However, any recordings stored on the module while disabled are not uploaded.







On a dual-sensor module, both sensors are disabled by a single operation. You must select the first of the two sensors to disable the sensors.

4.3.2 Changing a module on your equipment

6. Select the desired sensor in the list and click on the corresponding swap icon .
7. Enter the new sensor's serial number in the **Swap sensors** window
8. Click on **OK** to confirm the change, or cancel if you don't want to save the change.

Use the following options to manage your sensors

New	To add a new sensor, click on Add a sensor → Enter a name → OK .
Delete	To delete a sensor, click on a sensor and then, click on  and confirm in prompt that follows. Click on Cancel if you do not want to remove the sensor.
Edit	To edit a sensor name, click on the pencil  . If you make changes and want to keep them, click on  to save, or click on  to cancel editing.

To complete the configuration (before updating the module using EDGEConnect Mobile on your mobile iOS or Android device), click on the checkbox next to the equipment name → **Set Configuration**. Fill in the fields according to your needs.

4.4 Configuring a LoRa Gateway receiver

Equipped with LoRaWAN™ wireless technology, each W-200 can be geolocalized when within range of a Temptime LoRa Gateway receiver.



Before proceeding with these steps, please read the appropriate instructions in the Temptime LoRa Gateway Receiver User Guide to install and configure your receiver as required.

When an EDGE module sends its first reading to the LoRa receiver, EDGEConnect automatically registers the receiver in the **Settings** → **Receiver configuration** window:

Receiver	Node ID	Latitude	Longitude	Last connection	Associated	Edit	Delete
00:08:00:4A:09:1C	00:08:00:4A:09:1C			2017-11-02 07:47:42 AM	-		
00:08:00:4A:1D:F4	00:08:00:4A:1D:F4			2017-11-02 06:19:50 AM	-		
00:08:00:4A:09:20	00:08:00:4A:09:20			2017-10-12 08:40:47 AM	-		
00:08:00:4A:15:F4	00:08:00:4A:15:F4			2017-11-02 07:09:19 AM	-		

Figure 44 – Details of a Temptime LoRa receiver


The following details are shown in the table:

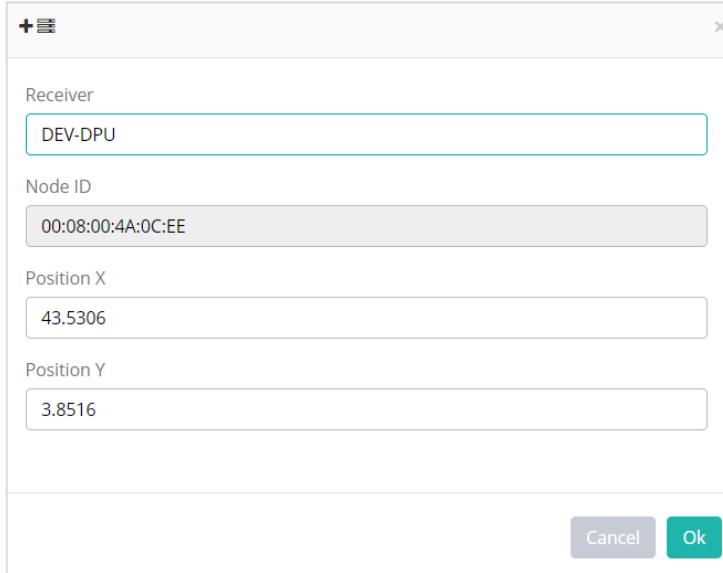
Node ID	MAC address of the Temptime LoRa receiver
Latitude	North-south position of the receiver
Longitude	East-west position of the receiver
Last connection	Date and time when the module last connected to the receiver

The icon indicates that the physical location of the receiver is not yet defined in the application.

At this point, you must fill in this information to complete the configuration, as described in the next section.

4.4.1 Configuring a receiver



9. Edit the receiver by clicking on the pencil  icon. Fill in the physical location of your receiver in the **Receiver** field.
10. Click on **OK** to confirm the information about your receiver:







Receiver configuration dialog box showing fields for Receiver (DEV-DPU), Node ID (00:08:00:4A:0C:EE), Position X (43.5306), and Position Y (3.8516). Buttons for Cancel and Ok are visible at the bottom right.

Figure 45 – Add a new receiver

The receiver is now configured in EDGEConnect and id indicated by a checkmark:

Receiver	Node ID	Latitude	Longitude	Last connection	Associated	Edit	Delete
DEV-DPU	a1:z2:e3:r4:t5:y6	43.61319	3.9	1970-01-01 01:00:00 AM	<input checked="" type="checkbox"/>		

Use the following options to manage your receivers:

- New** To add a new receiver manually, click on **New+** → Fill in the information → **OK**.
- Delete** To delete a receiver, click on a receiver and then, click on . Click on **Cancel** if you do not wish to remove the receiver.
- Edit** To edit a receiver name and /or position, click on the pencil  icon. If you make changes and want to keep them, click on  to save, or click on  to cancel editing.

4.5 Viewing equipment details

For a complete view of all equipment details, including sensor readings:

1. Click on **Equipment** → **Equipment management**
2. Click on the equipment name

Equipment Management

New+ Pair a Sensor % Tools v

Show 10 entries Search:

Status	Equipment Name	Equipment Type	Connected Sensors	Connected Department(s)	Edit
Disabled	Deleted	Ambient		Admin QC Maintenance Engineering R&D Commercial	
Alarm	Ravi Office	Ambient	Sensor Name E20630000014 - Last Reading 21.44°C	Admin QC Maintenance Engineering R&D Commercial	
OK	Lindberg Oven - Incoming Lab	Oven	Sensor Name E20630000011 - Last Reading 39.66°C	Admin QC Maintenance Engineering R&D Commercial	
OK	Darwin Incubator - Incoming Lab	Ambient	Sensor Name E20630000010 - Last Reading 3.22°C	Admin QC Maintenance Engineering R&D Commercial	
OK	Freezer 6	Walk-in Freezer	Sensor Name E20630000015 - Last Reading -34.09°C	Admin QC Maintenance Engineering R&D Commercial	

Figure 46 – Accessing complete equipment details

The Equipment details screen contains several zones with information about your equipment.

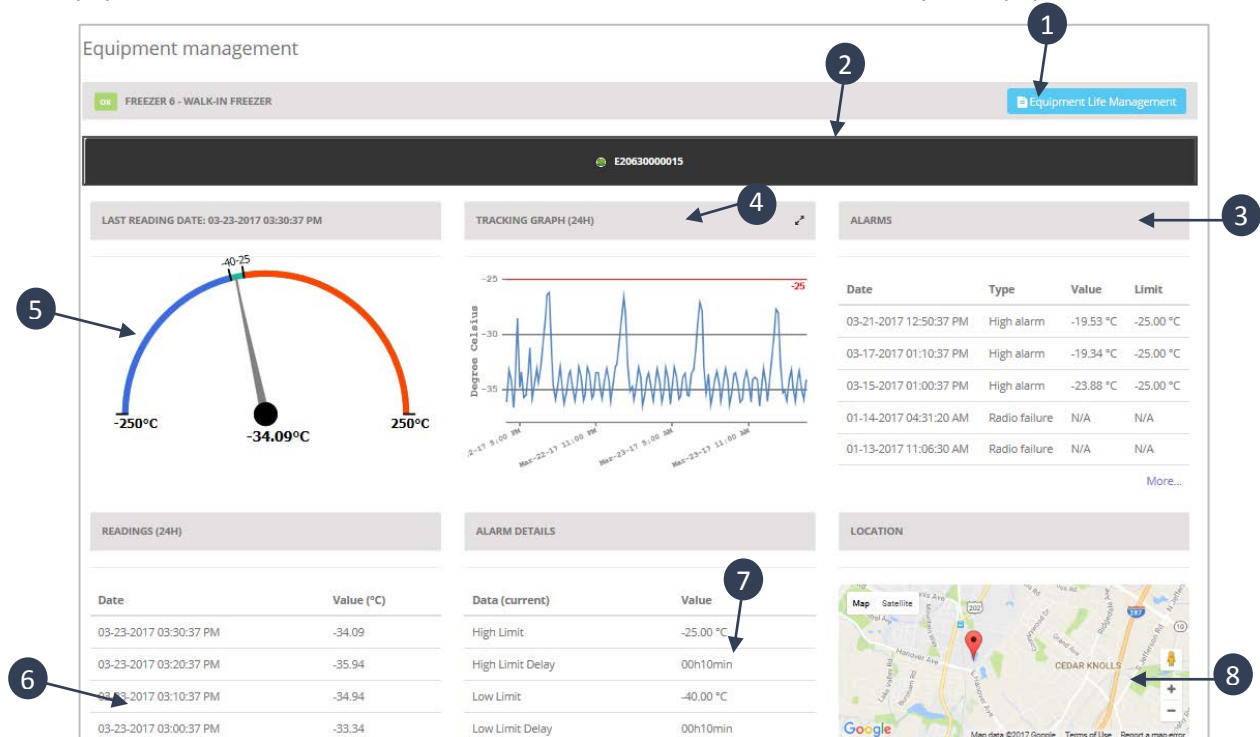


Figure 47 –Equipment details overview

Item	Description
1	Access equipment life management features
2	Each tab indicates a sensor (2 zones for dual-sensor modules)
3	List of recent alarms
4	View and access graph
5	Visual status of current reading
6	List of recent readings
7	Alarm details
8	Map showing last known location

4.5.1 Viewing graph details

When you move the mouse pointer over the graph, a popup window displays the temperature reading and the date when the value was read by the sensor.

You may expand the tracking graph display by clicking on the double-arrow in the corner of the zone, as shown below.

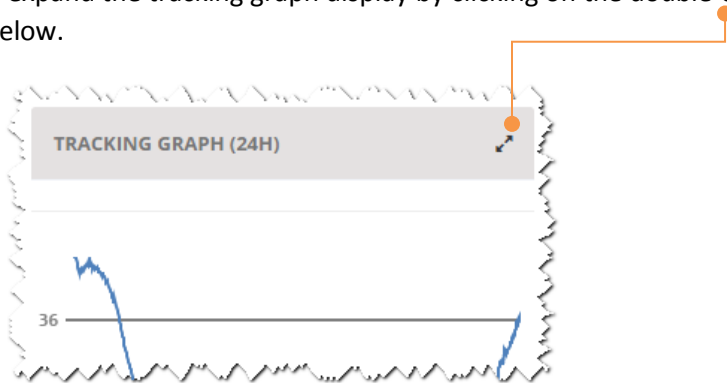


Figure 48 – Equipment details overview

The graph view opens into a new window, along with a list of sensor readings and their time-stamps. Click on Period to select the period of time you would like the graph to cover, namely:

- The past 24 hours
- The past week
- The past month
- A date and time range that you can specify

You can hover the cursor over the readings on the right to identify placement on the graph.

By default, EDGEConnect sets the minimum and maximum values for the temperature axis on the graph based on the readings or limits set. To better meet your needs, you can use the **Bottom** and **Top** buttons to adjust the scale:



Click on + or – to change the value at which the temperature axis starts.



Click on + or – to change the value at which the temperature axis ends.

Bluetooth advertisement frames sent by EDGE W-200 modules are represented by vertical dotted lines. Other symbols such as |>> and >>| indicate the arrivals and departures of datalogger modules.

If data is transmitted wirelessly to a LoRaWAN™ receiver, the physical location of that receiver is identified on the graph (see section 4.4 Configuring a LoRa Gateway receiver, page 42).

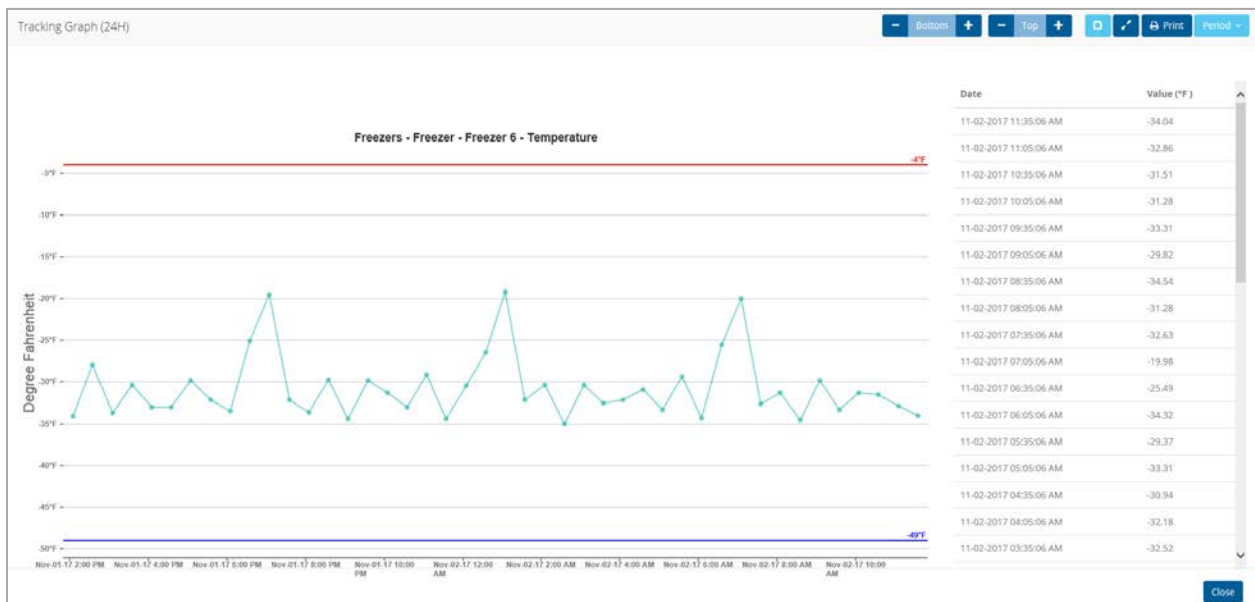



Figure 49 – Full-sized graph view and list of sensor readings

To smooth the graph(s), click on . This feature slightly changes the shape of the curve by softening angles.

You can also zoom into the readings on the graph by clicking on .

Click on **Close** in the lower right-hand corner to return to the previous screen.

4.5.2 Viewing collected data

The map shows the last known location of EDGE W-200 modules or the physical location of your LoRa Gateway receiver.

11. Click on the map to view the temperature readings recorded by the module or the receiver during the mission.
12. The map opens into a new window along with a list of sensor readings and their time-stamps. Readings display in chronological order with the most recent ones listed first:

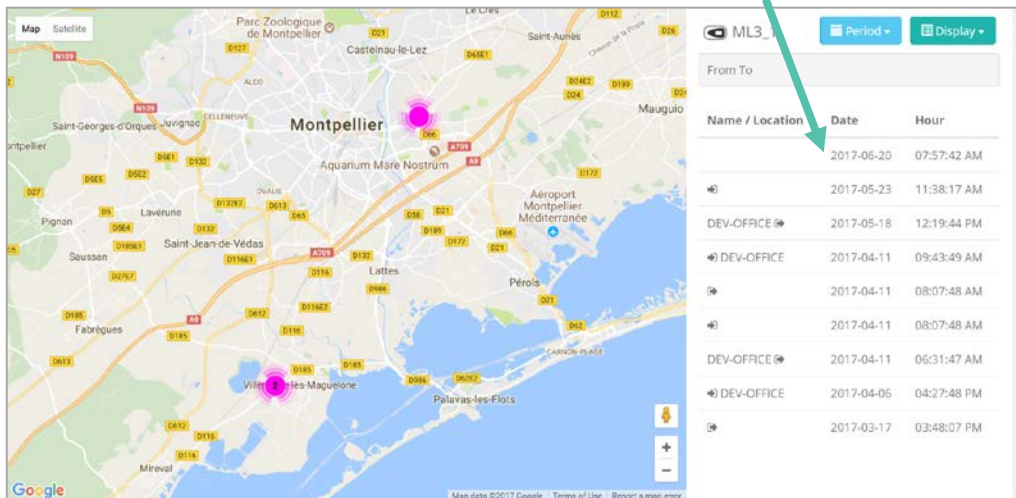


Figure 50 – Readings collected by a LoRaWAN™ receiver

13. You may restrict the list of sensor readings to the mission start date and end dates by clicking on **Period** → **Arrival/Departure** or, failing that, select **All** to view all data collected during the mission.
14. You may choose the time period for this listing by clicking on **Period** → select **24 hours**, **Week**, **Month**, **All**, or **Date-to-date**.

4.6 Reading data

As the EDGE W-200 module reads its sensor, the data is collected and transferred wirelessly to the Cloud at regular (configured) intervals. To preserve module battery life when the module is functioning properly, transmission to the Cloud occurs periodically.

EDGE W-200 Every 8 readings. That is, if you set the reading interval at 10 minutes, the data will be stored locally and then uploaded every 80 minutes.



Regardless of the data upload frequency, alarms are always transmitted immediately.

There are several ways to access recorded data:

- | | |
|--------------------------------|----------------------------------------------------------------------------------------|
| Equipment details | Complete details concerning the equipment, including temperature graphs. |
| List of sensor readings | Sensor readings presented in table format, including options to print and export data. |

4.6.1 Viewing sensor readings

To see a list of all the readings taken by a given sensor:

1. Click on **Readings** → **List**
2. Select your equipment using the pull-down menu.

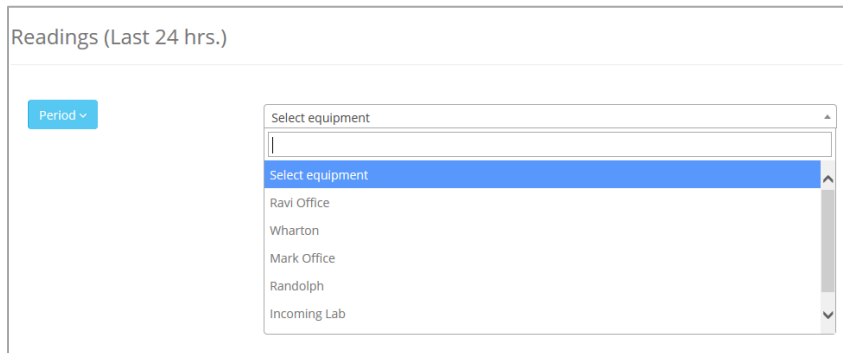


Figure 51 – Select equipment to view readings



To search for specific equipment, tap on the pull-down menu and enter the first letters of the equipment name in the empty field:

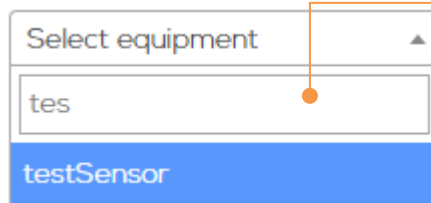


Figure 52 – Start typing the equipment name for fast access

3. As soon as you click on the name, the listing of sensor readings is displayed.

Readings (Last 24 hrs.)

Period Freezer 6

Show entries

Date/Time	Last Reading (°C)
03-23-2017 03:30:37 PM	-34.09
03-23-2017 03:20:37 PM	-35.94
03-23-2017 03:10:37 PM	-34.94
03-23-2017 03:00:37 PM	-33.34
03-23-2017 02:50:37 PM	-34.03
03-23-2017 02:40:37 PM	-36.06
03-23-2017 02:30:37 PM	-34.84
03-23-2017 02:20:37 PM	-33.22
03-23-2017 02:10:37 PM	-34.19
03-23-2017 02:00:37 PM	-36.03

Showing 1 to 10 of 138 entries ...

Figure 53 – Listing of all the readings on a given sensor in table format

- You may choose the time period for this listing by clicking on **Period** → select 24 hours, week, month, all, or date-to-date.
- Several options are available under **Tools**:
 - Print** Creates a PDF printout of this table. You may save the file or print it to the printer of your choice.
 - Export to MS Excel** Creates a .CSV format file that you can open with Microsoft Excel
 - Copy** Copies the data to the computer's clipboard so you can paste it into another application.
- The **Search** field can be used to filter the list. As you type numbers or letters in the **Search** field, the display adjusts automatically.

4.6.2 Creating reports

EDGEConnect™ enables you to print, copy or export several different reports concerning your equipment. Some screens in EDGEConnect™ offer a Tools button, such as those in the Reports section. Several options are displayed when you click on this button.




Figure 54 – Tools for creating a PDF, exporting, or copying data to the clipboard

The options under **Tools** are:

- | | |
|---------------------------|--------------------------------------------------------------------------------------------------------|
| PDF | Creates a PDF printout of this table. You may save the file or print it to the printer of your choice. |
| Export to MS Excel | Creates a .CSV format file that you can open with Microsoft Excel |
| Copy | Copies the data to the computer's clipboard so you can paste it into another application. |

4.6.3 Viewing multiple sensor graphs

You can view the temperature curves of several sensors simultaneously to monitor fluctuations over various missions or to compare similar equipment.

1. From the EDGEConnect main menu, click on **Readings** → **Graphical**
2. Click on  to open the sensor selection window.
3. Select the sensors by clicking the corresponding box in the **Add** column.



You can only combine sensors that are of the same type (temperature or humidity). As soon as you select the first sensor, EDGEConnect automatically filters the list accordingly.

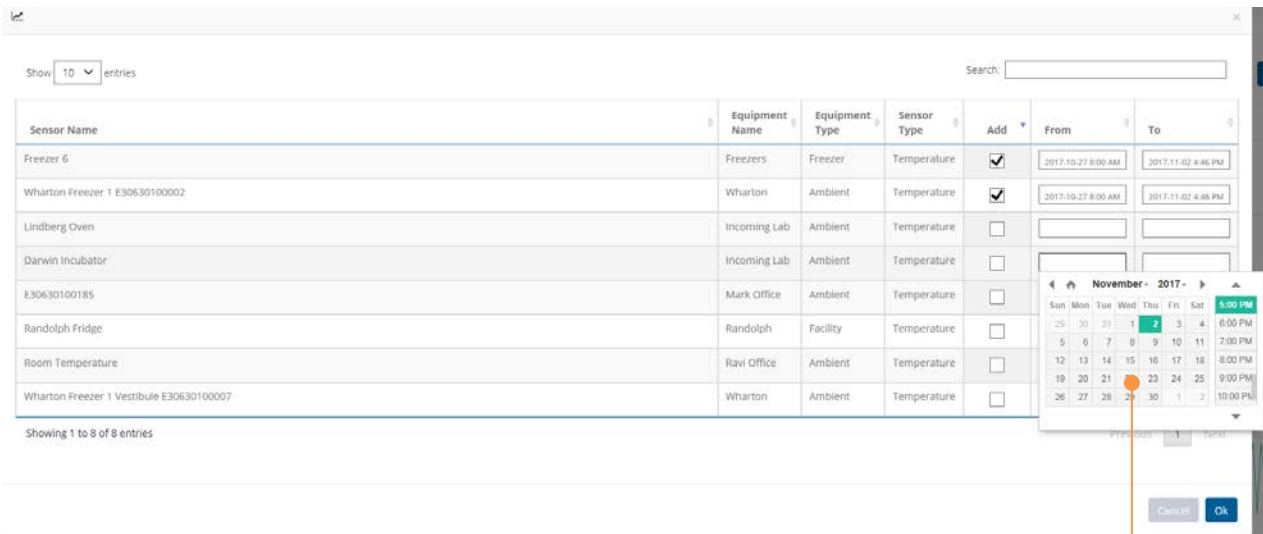



Figure 55 – Sensor selection window

4. You may refine the graph by selecting the period for which you would like to display data. Click in the **From** and/or **To** fields and use the pop-up calendar to select a date. Once the period is set for the first sensor, you must fill in the required information in the mandatory fields highlighted in red for all the sensors that you have selected. If left empty, the system defaults to the period (shown in parentheses to the right of the title "Graphical readings" in the **Readings** → **Graphical** page).
5. Then, click on **OK** to confirm your selection.

6. A colored graph is drawn using readings stored for each selected sensor:
 - o The vertical axis shows the temperature or humidity range,
 - o The horizontal axis displays the time scale,
 - o The color and serial number of each sensor are identified in the legend below the graph.
7. Click on  to smooth the graph(s). This feature slightly changes the shape of the curve by softening angles.
8. By default, EDGEConnect sets the minimum and maximum values for the temperature axis on the graph. To better meet your needs, you can use the **Bottom** and **Top** buttons to adjust the scale:



Click on + or – to change the value at which the temperature axis starts.




Click on + or – to change the value at which the temperature axis ends.



Figure 56 – Graph with high and low limits



Hover the mouse over the name of a sensor in the legend to display the upper (in red) and lower (in blue) temperature boundaries. If the selected sensor contains temperatures outside the graph area, click on  to “force” data to be displayed.

9. You can hide one or more curves in the graph by clicking on the colored icon of the desired sensor(s) in the legend. Once hidden, click the colored icon again to display the curve.

4.6.3.1 Zoom and controls

When you move the mouse pointer over a curve, a tooltip appears displaying the temperature reading and the date when the value was read by the sensor:

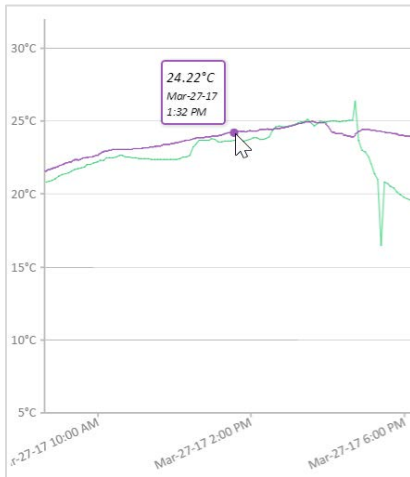


Figure 57 – Detail of a plot on the curve

You may zoom into a specific area in the graph to examine details:

- Click and drag the mouse pointer at the desired location in the graph
- Release the left mouse button to zoom to that region.
- Repeat these steps to get a higher zoom level.

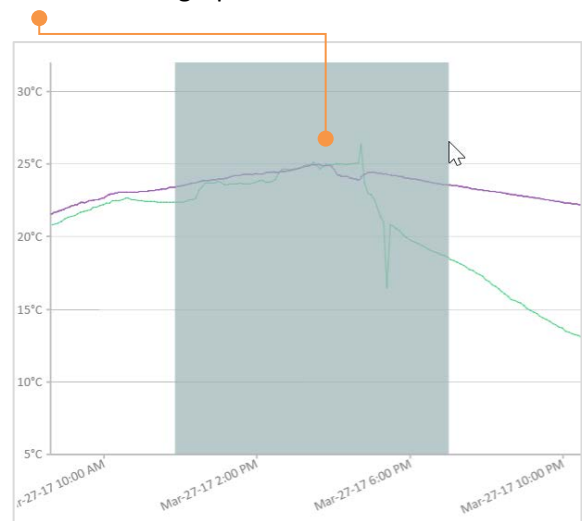





Figure 58 – Select the region to examine details

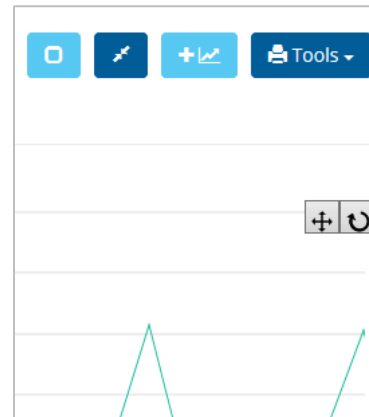
As you zoom in on the graph, additional tools become active in the upper right-hand part of the chart:

 Scrolls the graph to the left or right:

- Click this button to enable panning (the mouse pointer turns into a multidirectional arrow).
- Then, click anywhere on the graph and, while keeping the mouse button pressed drag right or left to focus on particular regions of the graph.

 Turns off panning mode

 Clears zoom or pan effects and resets the graph back to its original scale



4.6.3.2 *Selecting the period*

You may refine the graph by selecting the period for which you would like to display data (Last 24 hours, Last week or date range) from the **Period** drop-down menu.

4.6.3.3 *Exporting data*

To save the current graph as an image file, click on the **Tools** button and select the desired output format (.PNG or .JPEG).

You can also export the data in PDF format or print it on the printers installed on the server (either locally or on the network).

4.6.4 Event list

The Event list is a table that contains all the events that have occurred in your EDGEConnect™ system over a specified period of time.

To access the event list:

1. Click on **Reports → Event List**
2. Click on **Period** to select the dates for your listing.
3. You may filter events based on the user, equipment, or various categories. Use the pull-down menus to choose the information you want to display. The table adjusts automatically.

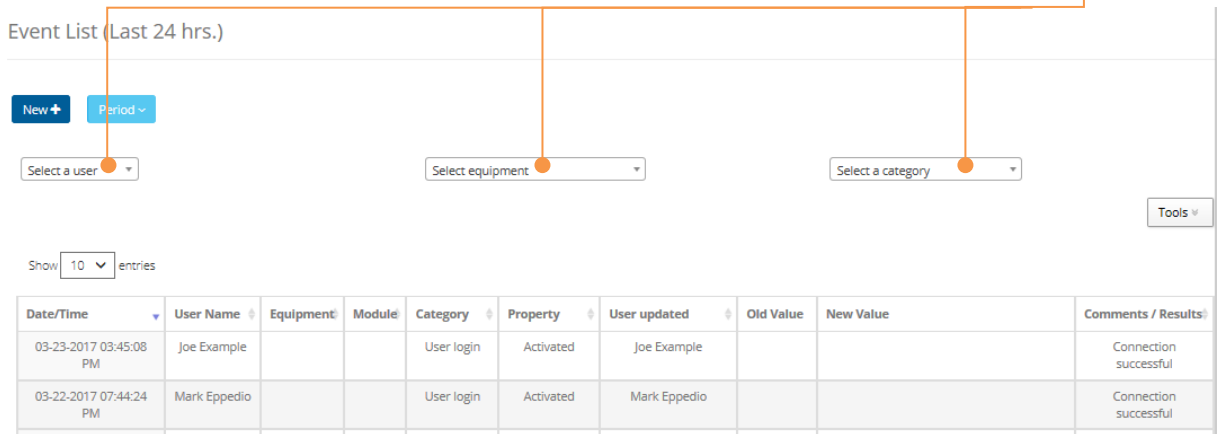


Figure 59 – Report of all system events

To add an event:

1. Click on **Report → Event List → New**
2. Fill the in fields according to your needs:

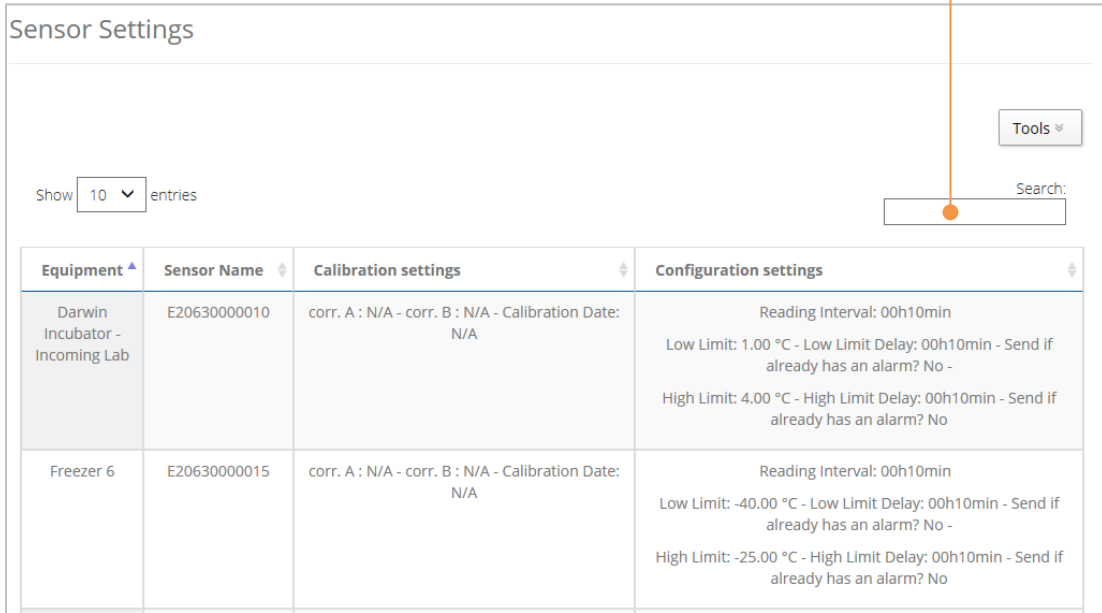
Date/time	Click in the field and use the pop-up calendar to select the date when the event occurred. The current date is selected by default.
Category	Select an event category.
Sub-category	Select an event sub-category.
Equipment serial number	Select the Equipment serial number.
Old value	Enter the value before the event occurred
New value	Enter the new value

Note: Other fields such as Properties, Comments/Results... may appear on screen according to the selected category and sub-category.

4.6.5 Settings Status

The **Settings Status** list is a table that shows all the current settings for the wireless sensors in your system. To access Settings Status:

1. Click on **Reports** → **Sensor Settings**
2. You may refine using the **Search** field, by typing the first letters of what you are looking for (such as a serial number, equipment name, etc). The table adjusts automatically.



Sensor Settings

Show entries

Tools ▾

Search:

Equipment ▲	Sensor Name ⇅	Calibration settings ⇅	Configuration settings ⇅
Darwin Incubator - Incoming Lab	E20630000010	corr. A : N/A - corr. B : N/A - Calibration Date: N/A	Reading Interval: 00h10min Low Limit: 1.00 °C - Low Limit Delay: 00h10min - Send if already has an alarm? No - High Limit: 4.00 °C - High Limit Delay: 00h10min - Send if already has an alarm? No
Freezer 6	E20630000015	corr. A : N/A - corr. B : N/A - Calibration Date: N/A	Reading Interval: 00h10min Low Limit: -40.00 °C - Low Limit Delay: 00h10min - Send if already has an alarm? No - High Limit: -25.00 °C - High Limit Delay: 00h10min - Send if already has an alarm? No

Figure 60 – A report showing the current settings for sensors in your system

4.7 Creating Equipment types















Equipment types are used for classifying your materials in categories. Once created, equipment types are available in a pull-down menu when adding a new piece of equipment to your system.

Follow these steps to add a new equipment type:

1. Click on **Equipment** → **Equipment Types**


Equipment Types


New +



Equipment		
Ambient		
Walk-in Freezer		
Oven		
Incubator		
Warehouse		
Freezer		
Refrigerator		

2. To manage your equipment types, use the following options:

New To add a new equipment type, click on **New** → Enter a name → **OK**

Delete To delete an equipment type, click on 

Edit To edit an existing equipment type, click on the pencil 

If you make changes and want to keep them, click on () , or click on  to cancel editing.

4.8 Creating Equipment Groups

Equipment Groups are used for creating alert rules. That is, when you define system notifications, alerts are assigned for Equipment Groups. Equipment Groups can be by department, type of equipment, or by whatever manner you prefer to organize the equipment. Follow these steps to customize the **Equipment Groups** in your system:

1. Click on **Equipment** → **Equipment Groups**

Equipment Groups	
QC	X
Production	X
Testing	X
Commercial	X

Equipment	
Freezer 6	-
RCS Press	-

2. Use the following options in this screen to manage your Equipment Groups:

New To create a new Equipment Group, click on **New+** → Enter a name → **OK**

Add To assign equipment, click on the Equipment Group → **Add+** → Select equipment from the list → **OK**

Notes:

- Use the Search function to refine the list if you want
- A given piece of equipment may be contained in several groups

Remove To remove equipment from a group, click on the “ – ” icon

Delete group To delete a group, click on the **X** icon under Equipment Groups

5 Alarms & Alerts

EDGEConnect™ monitoring system features an alert mechanism that informs you if your sensors go outside their expected range or if some other technical error occurs. For example, if a temperature sensor is configured to monitor a cold-storage unit between 2°C and 8°C, and the sensor reads a temperature of 9°C, then an alarm is shown in EDGEConnect™. The system sends an alert to one or more users if an alarm is detected. In this context, it is important to understand the distinction between alarms and alerts:

5.1 Viewing alarms

5.1.1 Alarms highlighted in the dashboard

The first place you will see an alarm visually is in the Dashboard window, in the **Global view** tab.

When there are no errors, the number displayed in the **Equipment Errors** block is “0”. This number increases to show the number of modules currently in an alarm state.

Note: Acknowledging an alarm does not necessarily clear its alarm state. The issue may still exist, even if you acknowledge the alarm.

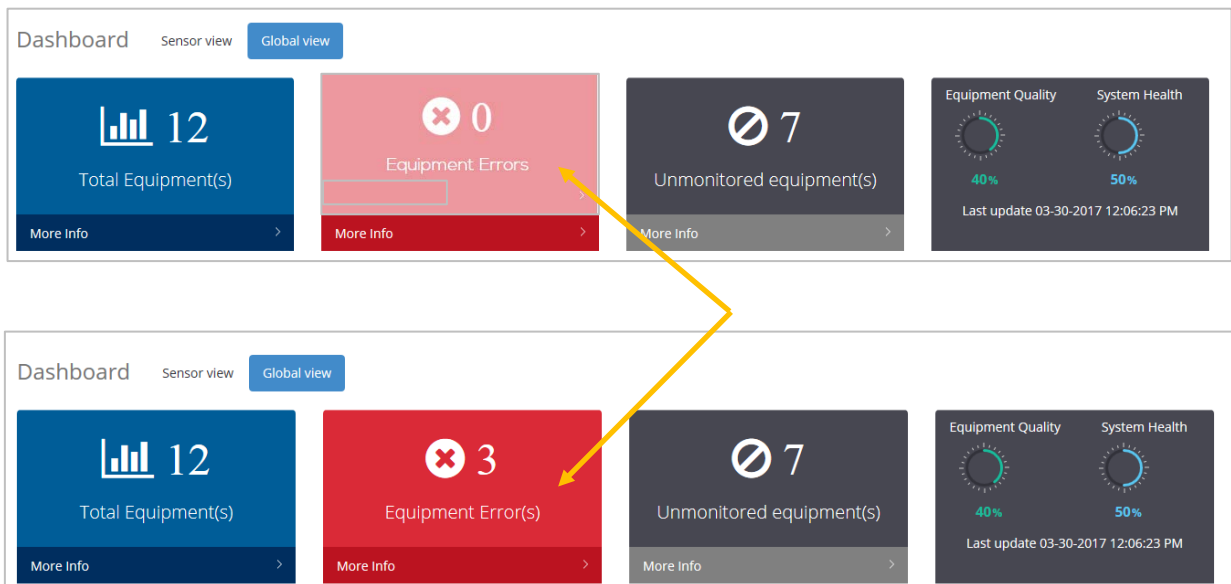


Figure 61 – Alarm conditions are indicated in the Equipment Errors block.

5.1.2 Viewing alarm details

1. When you see that you have equipment with errors, click on **More Info** to see details.

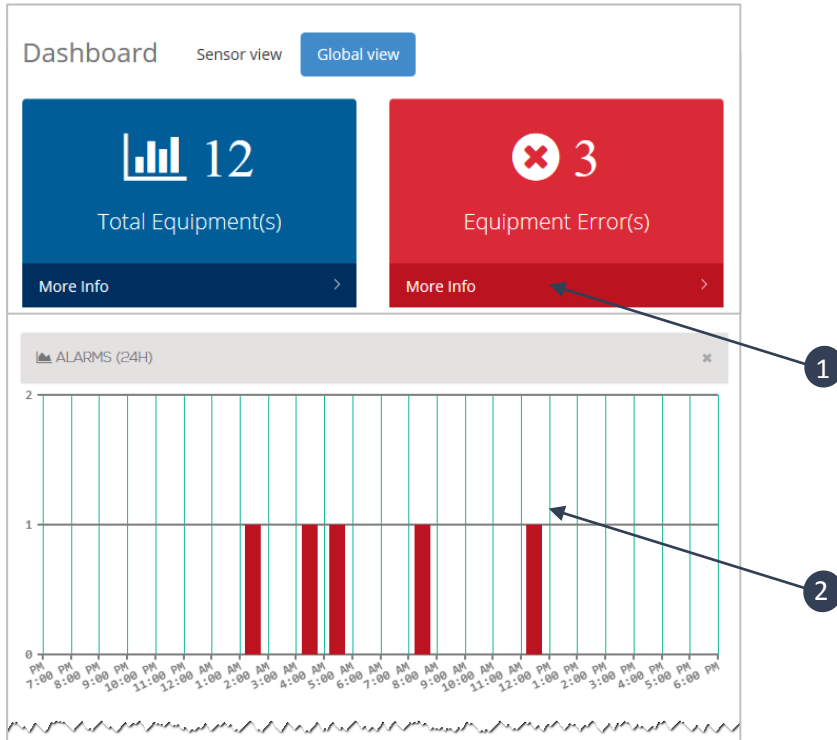


Figure 62 – Alarm indicators on dashboard screen

Item	Description
1	Click on More info for direct access to the list or function.
2	This chart shows the number of unacknowledged alarms accumulated over the past 24 hours

- The Equipment Management screen opens, showing the equipment with alarms. Click on “+” to see the sensor(s) with errors:

Equipment Management screen showing a table of equipment with alarms. The table has columns: Status, Equipment Name, Equipment Type, Connected Sensors, Connected Department(s), and Edit. The first row is highlighted with an orange arrow pointing to the '+' icon in the Status column.

Status	Equipment Name	Equipment Type	Connected Sensors	Connected Department(s)	Edit
+ Alarm	Ravi Office	Ambient	Sensor Name E20630000014 - Last Reading 21.44°C	Admin QC Maintenance Engineering R&D Commercial	
+ Alarm	RCS Press	Ambient	Sensor Name E20630000012 - Last Reading 0.81°C	Admin QC Maintenance Engineering R&D Commercial	
+ Alarm	Test	Ambient	Sensor Name E20630000016 - Last Reading 115.19°C	Admin QC Maintenance Engineering R&D Commercial	

Showing 1 to 3 of 3 entries (filtered from 12 total entries) Previous 1 Next

- Click on the sensor name to view complete details:

Sensor details page for RCS Press. The sensor name is highlighted with an orange arrow.

Sensor Name: E20630000012 Alarm: Low alarm & Radio failure Last Reading: 0.81 °C Last Reading Date: 02-14-2017 07:22:13 PM

The sensor details appear in the **Equipment management** page:

Equipment management page for a freezer. The page displays various sensor data and alarms.

Equipment management

ok FREEZER 6 - WALK-IN FREEZER Equipment Life Management

E20630000015

LAST READING DATE: 03-23-2017 03:30:37 PM

TRACKING GRAPH (24H)

ALARMS

Date	Type	Value	Limit
03-21-2017 12:50:37 PM	High alarm	-19.53 °C	-25.00 °C
03-17-2017 01:10:37 PM	High alarm	-19.34 °C	-25.00 °C
03-15-2017 01:00:37 PM	High alarm	-23.88 °C	-25.00 °C
01-14-2017 04:31:20 AM	Radio failure	N/A	N/A
01-13-2017 11:06:30 AM	Radio failure	N/A	N/A

More...

READINGS (24H)

Date	Value (°C)
03-23-2017 03:30:37 PM	-34.09
03-23-2017 03:20:37 PM	-35.94
03-23-2017 03:10:37 PM	-34.94
03-23-2017 03:00:37 PM	-33.34

ALARM DETAILS

Data (current)	Value
High Limit	-25.00 °C
High Limit Delay	00h10min
Low Limit	-40.00 °C
Low Limit Delay	00h10min

LOCATION

Map Satellite CEDAR KNOLLS

Map data ©2017 Google Terms of Use Report a map error

5.2 Sending e-mail alerts to Call Groups

EDGEConnect™ sends alerts via e-mail to one or more users configured in Call Groups. Each user is configured with an e-mail address to be used for this purpose. To implement alerts, you must therefore create one or more Call Groups and then create alert rules to determine the equipment and modules for which those groups will receive alert e-mails.

5.2.1 Creating a Call Group

To customize your Call Groups, follow these steps after configuring one or more users (including an e-mail address) in your system:

1. Click on **Users** → **Call Groups**

Call Groups

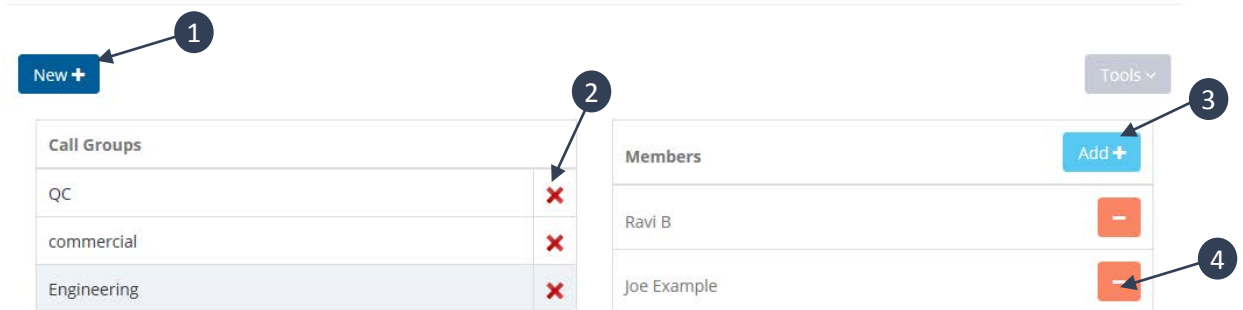


Figure 63 – Managing Call Groups

2. Use the following options in this screen to manage your Call Groups:

Item	Description
1	To create a new Call Group, click on New → Enter a name → OK
2	To delete a group, click on the “ x ” icon under Call Groups
3	To assign members, click on the Call Group → Add → select users from the list → OK Notes: – You may use the Search function to refine the list – A given user may be a member of several groups
4	To remove a member, click on the “ – ” icon

5.2.2 Configuring an alert rule

Each Call Group can have one Alert rule assigned to it. Follow these steps to configure an alert rule:

1. Click on **Settings** → **Alert Configuration**.
2. Click on a Call Group, then on **New**

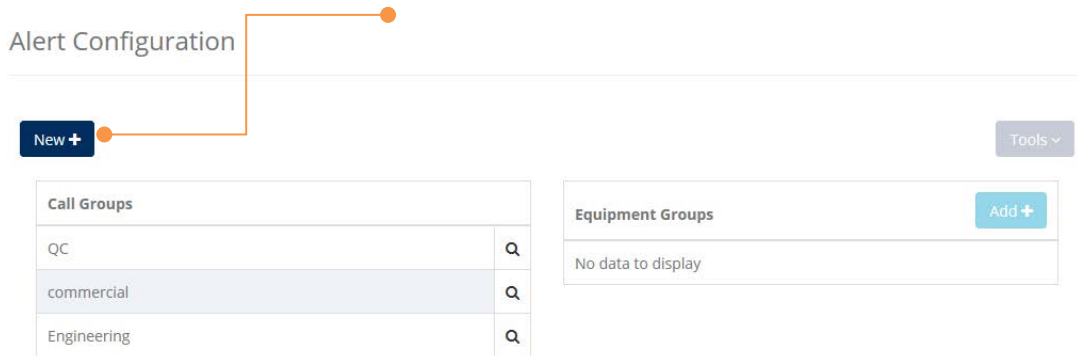


Figure 64 – Configuring e-mail alerts for a Call Group

3. Fill the in fields according to your needs.

The screenshot shows a dialog box titled 'Add rule for the group Maintenance'. It contains several sections for configuring an alert rule:

- Rule label ***: A text input field.
- Select equipment group(s):**: A dropdown menu showing 'No option selected...'. There is also a blue 'Add +' button next to it.
- Week**: A section with two columns. The left column has 'Workday start time' (9:00 AM) and 'Workday end time' (6:00 PM). The right column has 'Week-end' and 'Weekend start day & time' (Friday, 6:00 PM) and 'Weekend end day & time' (Monday, 9:00 AM).
- Time Zone**: A dropdown menu showing 'Africa/Abidjan'.
- Phone**: A section with three checkboxes: 'Day Alerts', 'Night Alerts', and 'Weekend Alerts'.
- SMS**: A section with three checkboxes: 'Day Alerts', 'Night Alerts', and 'Weekend Alerts'.
- Email**: A section with three checkboxes: 'Day Alerts', 'Night Alerts', and 'Weekend Alerts'.

At the bottom right of the dialog box are 'Cancel' and 'Ok' buttons.

Figure 65 –Setting e-mail alert notification options

Rule label	Assign a friendly name for the label.
Select equipment group(s)	Click on the pull-down list to select the equipment groups for which alerts will be sent.
Week	Set the start and end times that are considered as part of the regular work week, for example, including regular full-time staff members.
Weekend	Set the start and end times that are considered as part of the weekend, for example, for on-call staff.
Time zone	Use the pull-down menu to select the time zone for your settings
E-mail	Indicate when e-mail should be sent to the group in question (day, night, or weekends).

4. Click on **OK** to save your changes, or on **Cancel** to return to the previous screen without saving changes.
5. After configuring the rule for a Call Group, you may edit the rule directly by clicking on the Call Group and then saving your changes.

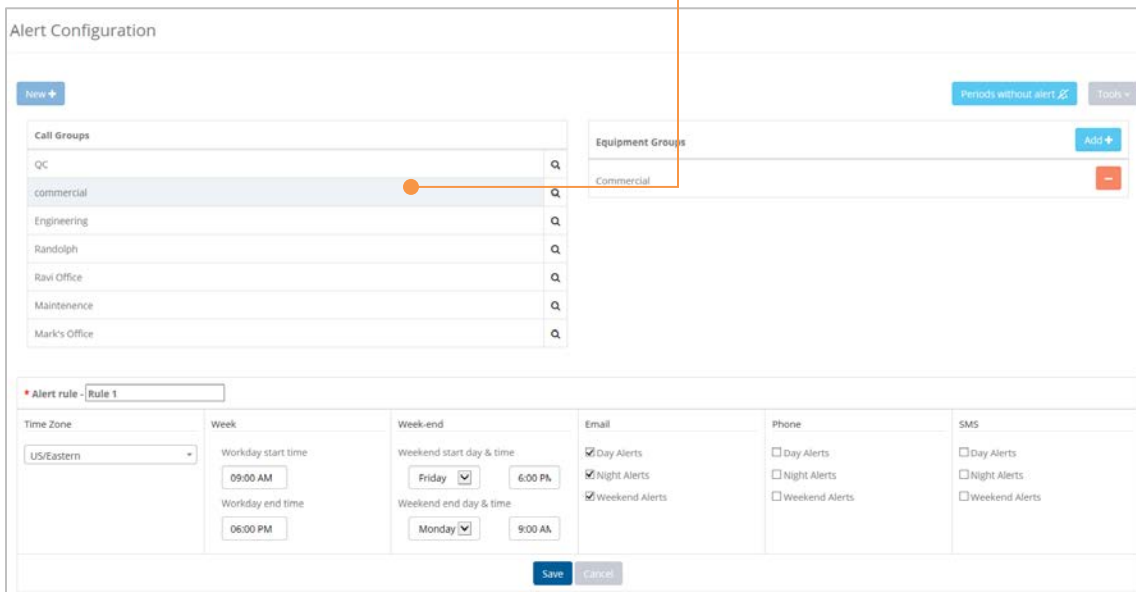


Figure 66 – Re-configuring e-mail alert settings after initial setup

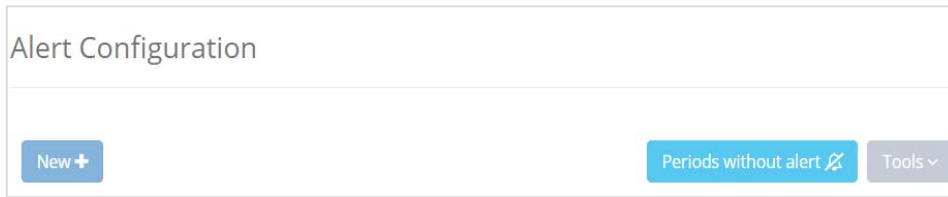
5.2.3 Configuring periods without alerts

You can disable alert notifications for specific periods for instance when a module is not used.

Follow these instructions to configure periods when alerts will not be sent:

1. Click on **Settings** → **Alert Configuration**

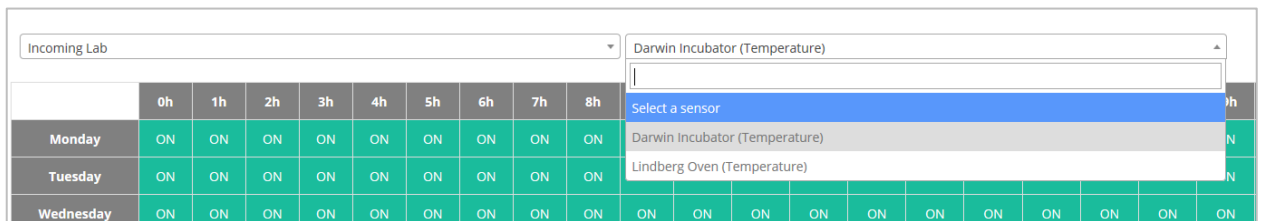
- Click on **Periods without alert**. This opens the **Periods without alerts** window.



- Select your equipment using the pull-down menu:



- Select the desired sensor from the pull-down menu or enter the first digits of the sensor's serial number in the empty field:



- Click on the desired time(s) for which you would like to disable the alarms. You can click and drag the mouse vertically or horizontally to choose multiple time slots at once.

The selected time slots are set to OFF.

If an alarm is triggered during a time slot that is set to **OFF** for a sensor, the alarm is automatically acknowledged by the system and no alerts are issued.

Periods without alert

Incoming Lab ▾ Darwin Incubator (Temperature) ▾

	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	18h	19h	20h	21h	22h	23h
Monday	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Tuesday	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Wednesday	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Thursday	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Friday	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Saturday	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Sunday	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON

[Back](#) [Save](#)

Figure 67 – Configuring periods without alerts

6. Click on **Save** to save your changes.
7. To re-enable the alert notifications for a specific period, click on a time slot to toggle the function on.
8. To go back to the alert configuration window, click on **Back**.

5.3 Acknowledging alarms

When alarms are displayed for your equipment, you must acknowledge the alarms in EDGEConnect™ and take care of the problem so that further alarms do not continue to occur.



You may acknowledge an alarm as described in this section, but it is important to note that the alarm status is still shown in red in the EDGEConnect™ dashboard until the next reading transmitted by the module no longer indicates the alarm condition. That is, acknowledging the alarm in software does not actually fix any physical or technical problem encountered by the module, and the module could still be in an alarm state.

5.3.1 Adding acknowledgement reasons

1. To be able to acknowledge alarms, you must first create a list of one or more “reasons”. These reasons may then simply be selected in a pull-down menu when acknowledging alarms. Edit your list of reasons in Settings → Acknowledgement reasons → [New +](#)
2. Enter a brief text to indicate the reason, then click on **OK**.

Add a new reason

Reason label *

Weekly Testing

Cancel Ok

Figure 68 – Add a new reason for acknowledging alarms

Your new reason is then added to the list:

New +

Tools

Show 10 entries

Search:

Reasons		
Initial Setup		
Opened door		
Test Temptime		
Weekly Testing		

Figure 69 – List of Acknowledgement reasons

You may edit an existing reason by clicking on the pencil (✎), or delete one by clicking on the (✖). If you make changes and want to keep them, click on (✔), or click on ✖ to cancel editing.

5.3.2 Acknowledging an alarm

1. Click on **Alarms** in the left-hand menu bar, which opens the alarm list directly.
2. Choose an unacknowledged alarm:

Date/Time	Type	Alarm readings	Status	Acknowledgement Reason
03-28-2017 12:56:04 AM	Radio failure	N/A	Not acknowledged	
03-21-2017 08:50:37 AM	High alarm	-19.53 °C	Not acknowledged	
03-20-2017 03:30:21 PM	Radio failure	N/A	Not acknowledged	
03-17-2017 09:10:37 AM	High alarm	-19.34 °C	Not acknowledged	
03-17-2017 07:36:01 AM	Radio failure	N/A	Not acknowledged	
03-15-2017 09:00:37 AM	High alarm	-23.88 °C	Not acknowledged	
03-07-2017 01:12:10 PM	High alarm	105.97 °C	Not acknowledged	
03-07-2017 08:02:10 AM	High alarm	108.50 °C	Not acknowledged	
03-03-2017 05:09:02 AM	Radio failure	N/A	Acknowledged	Test

Figure 70 – Click on a line with an unacknowledged alarm

3. Click directly on a line that has not yet been acknowledged.



To organize the display of unacknowledged alarms (shown above), you may sort the column by clicking on the “Status” label, or starting to type “Unacknowledged” or other characters or numbers, depending on your need.

4. Select an Incident cause and (optionally) add an explanatory message.

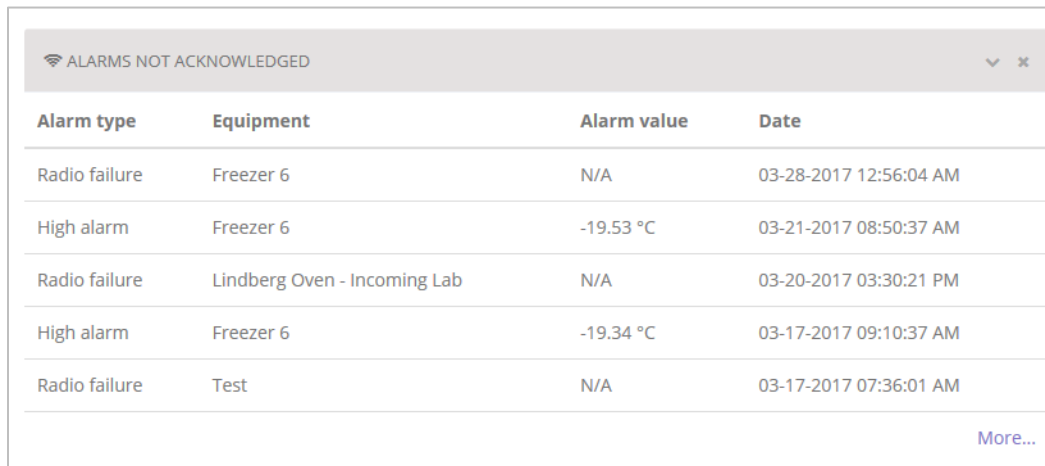
Acknowledge Alarm **15764** ×

Alarm type	High alarm
Reading	-19.53 °C
Alarm value	-25.00 °C
Alarm Start Time	03-21-2017 08:50:37 AM
Alarm End Time	03-21-2017 09:10:37 AM
Alarm duration	00h 20min 00s
Incident cause	Opened door <input type="button" value="v"/>
Message	<input type="text"/>
State of sensor	Enabled <input type="checkbox"/>

Figure 71 – Explain the reason for acknowledging this alarm

5. Click on **OK** when done or **Cancel** to return to the previous screen without saving the acknowledgment.

5.4 Alarm values and codes



Alarm type	Equipment	Alarm value	Date
Radio failure	Freezer 6	N/A	03-28-2017 12:56:04 AM
High alarm	Freezer 6	-19.53 °C	03-21-2017 08:50:37 AM
Radio failure	Lindberg Oven - Incoming Lab	N/A	03-20-2017 03:30:21 PM
High alarm	Freezer 6	-19.34 °C	03-17-2017 09:10:37 AM
Radio failure	Test	N/A	03-17-2017 07:36:01 AM

Figure 72 – Alarm indication on the dashboard screen

When looking at the main dashboard, equipment with alarms is shown on the right-hand side. This zone indicates various alarms that have occurred in your system.

Alarm type Indicates the type of alarm that occurred. This includes both technical alarms (such as wireless radio failure) and limit alarms (such as an out-of-range temperature reading).

Equipment Indicates the equipment on which the problem was detected.

Alarm value Various codes indicating technical alarms:
-998: Wireless radio failure (communication problem)
-997: Low-battery alarm (battery below 10%)
-999: Sensor failure
-1000: No sensors readings have been recorded

Date The date and time at which the alarm occurred.

6 Equipment Life Management

With the focus of EDGEConnect™ being centered around the notion of equipment, the solution includes an Equipment Life Management feature that you can use to enter practical information about equipment. Use this feature to track various details, notably:

- Interventions
- Events
- Identification
- Maintenance operations

Information is contained in an Equipment Life Sheet, which you may access from the Equipment List page (**Equipment** → **Equipment Management** → Click on equipment name)



6.1 Adding a comment

The General Comments page is useful for entering individual comments related to a given piece of equipment.

1. Click on **General Comments** → **New**

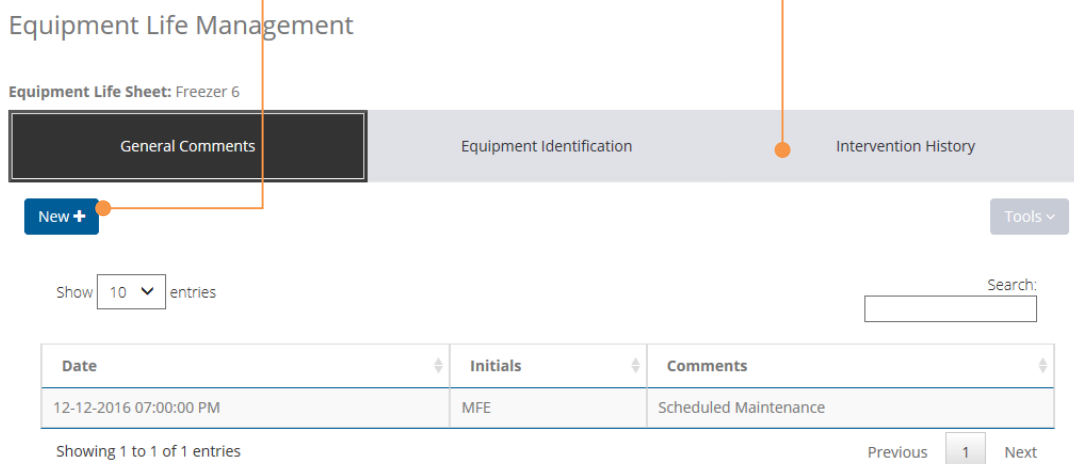


Figure 73 – Accessing Equipment Life Sheet

The following window appears on screen:

The image shows a dialog box titled "Add a comment" with a close button (X) in the top right corner. Inside the dialog, there are three text input fields, each with a red asterisk indicating it is required. The first field is labeled "Date: *", the second is "Initials: *", and the third is "Comments: *". At the bottom right of the dialog, there are two buttons: "Cancel" and "Ok".

Figure 74 – Adding a comment regarding equipment

2. Enter information that is relevant for the equipment (all three fields are required).
 - Date** Click in the field and use the pop-up calendar to select a date. The current date is selected by default.
 - Initials** Enter your initials to identify yourself as the person who made the comment.
 - Comment** Write you comment in this field, up to 511 characters (including spaces).
3. Click on **OK** to save your changes or on **Cancel** to return to the previous screen.

6.2 Identifying equipment

Use the Equipment Identification tab to store a variety of equipment-specific information.

1. Click on **Equipment Identification**

Figure 75 – Adding specific equipment identification information

2. Enter information in the fields for your own information. None of the fields are required.



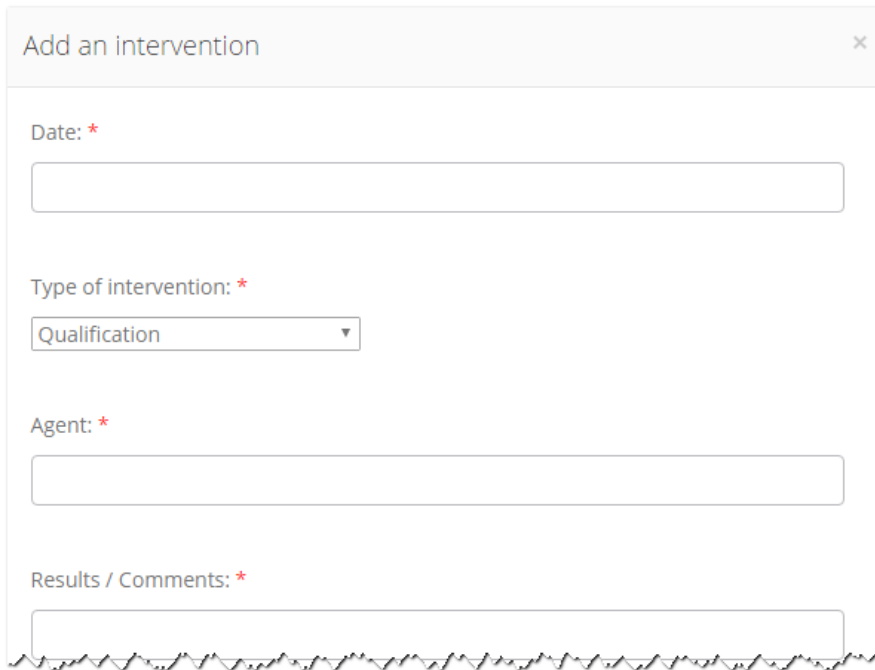
You may upload one document to the system per piece of equipment (using **Document** → **Choose File** on this page). If you upload a document and then upload another, the second document will overwrite the first one.

3. Click on **OK** to save your changes or on **Cancel** to return to the previous screen.

6.3 Maintenance / interventions

You may record interventions on this equipment using the **Intervention History** tab.

1. Click on **History of Interventions**



The screenshot shows a modal window titled "Add an intervention" with a close button (X) in the top right corner. The form contains four fields, each with a red asterisk indicating it is required:

- Date: ***: A text input field.
- Type of intervention: ***: A dropdown menu with "Qualification" selected.
- Agent: ***: A text input field.
- Results / Comments: ***: A text input field.

Figure 76 – Recording interventions on your equipment

2. Click in the **Date** field and use the pop-up calendar to select a date. The current date is selected by default.
3. Enter information in the fields or select an option from the pull-down menus. The fields marked with a red asterisk (*) are required.
4. Click on **OK** to save your changes or on **Cancel** to return to the previous screen.

7 Getting help

7.1 Updating your license

For information about your EDGEConnect system, click on **Help → Support**.

This page contains a complete summary of the various components of your system, including version number and license information:

License information	
Creation Date	07-19-2017
Expiration Date	07-23-2022
Total sensors	143
Available sensors	93
Activated sensors	50

Update

System Health	
System Health	2017-11-07 16:07:22
Version	EDGE CONNECT 1.4.1.24
Server hostname	ns367862
Browser information	Unknown Unknown

Print

Figure 77 – System and license information

- To update your license after obtaining a new voucher, click on **Update** in the **License Information** area. In the license popup window, enter the new activation key (voucher) number. This updates your license immediately.

7.2 Contacting technical support

Depending on your level of support, you may contact Temptime technical support for assistance.

To send a message to technical support:

9. Click on **Help → Support**.
10. Write the body of your message in the text field (you may include detailed system information in your message) and click on **Send**.

Contact technical support

[Send](#)

Figure 78 – Technical support contact form

7.3 User manual

You may need to check or download the latest version of the EDGEConnect Web App User Guide.

Click on **Help** → **Online help** to open or download the latest PDF version of the manual.

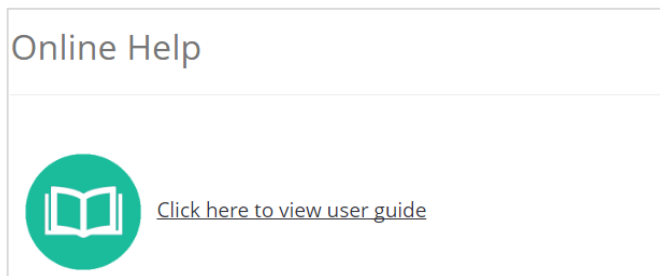


Figure 79 – Access to the EDGEConnect Web App User Guide

8 Appendix – Frequently Asked Questions

If you are having difficulties with your configuration, look at these frequently asked questions before contacting technical support.

I cannot delete a user. What should I do?

For traceability reasons, you cannot delete a user. You must use **Users → User Management** and deselect the “Active user” checkbox.

How can I update my license to add additional sensors?

To update your license after obtaining a new voucher, click on **Help → Support** and enter your new voucher number. Your license is updated immediately.

I closed some widgets in the dashboard. How can I get them back?

To restore closed widgets in the dashboard, simply reload the page by pressing the **F5** key on your keyboard.

I made some changes to a user’s profile, but they do not seem to have any effect. What should I do?

Close the session (logout) and reconnect in for your user changes to take effect.

9 Index

A

Active user	78
Add equipment	6, 14, 15
Alarm codes	71
Alarms	74
Acknowledge	74
Codes	74
Values	74
Alert rules	80
Alerts	7, 74

B

Browsers	6
----------------	---

C

Call Groups	63, 74
Change password	30

D

Dashboard	18, 80
Delete a user	78
DFR compliance	6
Disabled sensor	17, 20
Disabling a sensor	40

E

EDGEConnect Mobile Application	8, 39
E-mail alerts	63
Enabling a sensor	40
Equipment	8
Equipment Errors	60
Equipment identification	
History of interventions	74
Maintenance	74
Equipment name	14
Equipment overview	6

Equipment, management	74
Export to MS Excel	51

F

Features	6
----------------	---

G

Graph details	45
---------------------	----

H

History of Interventions	75
--------------------------------	----

I

Incident cause	69
----------------------	----

L

Language, change	6
License	74
License voucher	9
Login screen	6
LoRa Gateway, configure	80

M

Maintenance	74
-------------------	----

P

Password	
Change	29
Reset	29
Profile picture	31

R

Reading Interval	16, 48
Reports	80
Reports, create	80
Reset password.....	29

S

Safety notices.....	27
Search	49
Setup wizard	6
Signing in.....	12
Support, technical.....	74

T

Technical support	74
Terminology	27
Transfer interval.....	48

U

Upload a photo.....	37
User account, create	6

V

Voucher	9, 11, 78
---------------	-----------