



# How to Integrate Milesight Devices into the Wattsense Platform



Version Change Log			
Version	Revision Date	Revision Details	Revised By
V1.0	20250416	Initial	Lockon



# Introduction

The Wattsense Connect Box, a product under Siemens, is an IoT building management solution designed specifically for small and medium-sized buildings. It simplifies device connectivity and data management. The device supports multiple communication protocols including LoRaWAN, BACnet IP, Modbus RTU/TCP, M-Bus, and KNX, enabling seamless integration with various Building Automation Systems (BAS) and existing equipment. Users can easily configure devices through the Wattsense web console and quickly deploy smart building applications using the embedded API.

The Connect Box features a simple installation process—typically completed within a day—and supports remote configuration and real-time data access, which helps enhance operational efficiency and energy management. Additionally, it is equipped with 4G communication and local data storage to ensure data reliability and security. For facility managers aiming to achieve digital transformation in their buildings, the Wattsense Connect Box offers an efficient, flexible, and cost-effective solution.

This document introduces how to integrate Milesight sensors with the Wattsense gateway device, and how to observe the real-time data reported by the devices within the Wattsense platform.

In this demonstration, we use the EM300-ZLD sensor as an example. (Note: The EM300-ZLD is used here for demonstration purposes only. You may use your own device depending on your actual use case.)

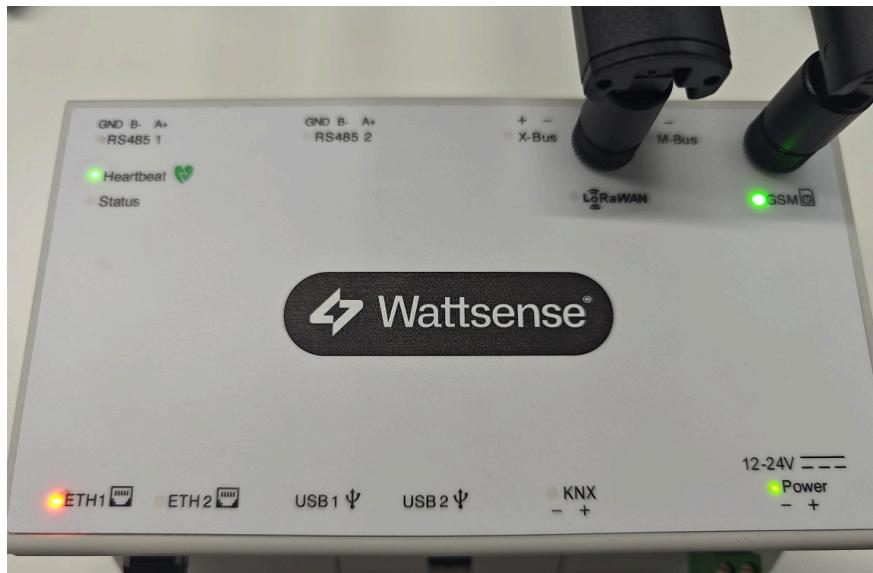
## 1. Prerequisites

- **Gateway Model:** Wattsense WSG-EU-SC-14-00 (with Wattsense cloud account)
- **Sensor Model:** EM300-ZLD
- **Frequency Band Used in This Demo:** US915

## 2. Preparation

Open the device casing and insert a cellular SIM card to provide network access to the device, as shown in the following image:





Then, record the ID label on the gateway casing. This will be used later for device identification on the platform.



### **3. Log in to the Wattsense Platform**

Once the device is connected to the internet, it will automatically connect to the Wattsense cloud platform. Next, go to <https://console.wattsense.com/> and search for the device using the recorded device ID. You should see your device as shown in the image below:

EN ▾

The logo for Wattsense, featuring a stylized lightning bolt icon followed by the word "Wattsense" in a bold, lowercase sans-serif font.

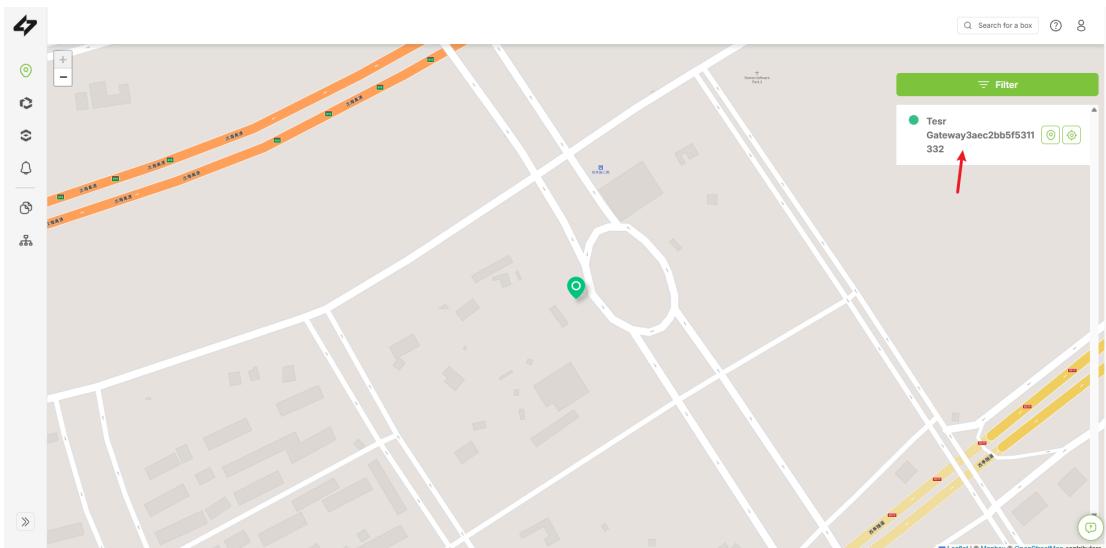
## Log in to your account

E-mail

Next

First visit ? [Activate your account here](#)

[Contact the support team](#)

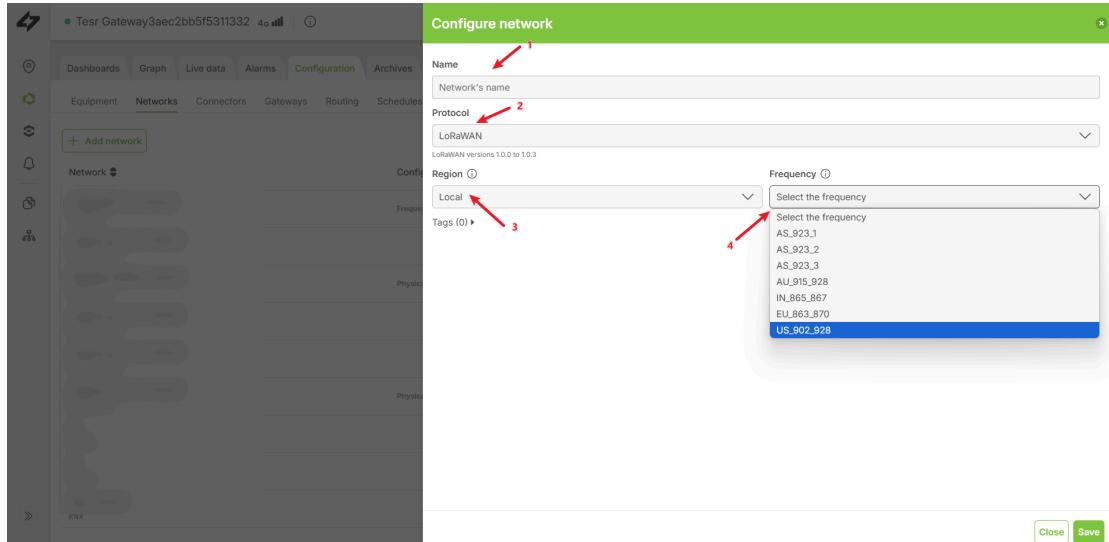


**Tip:** You can also use the "Map" function to help locate your device.

## 4. Create LoRaWAN Network Configuration

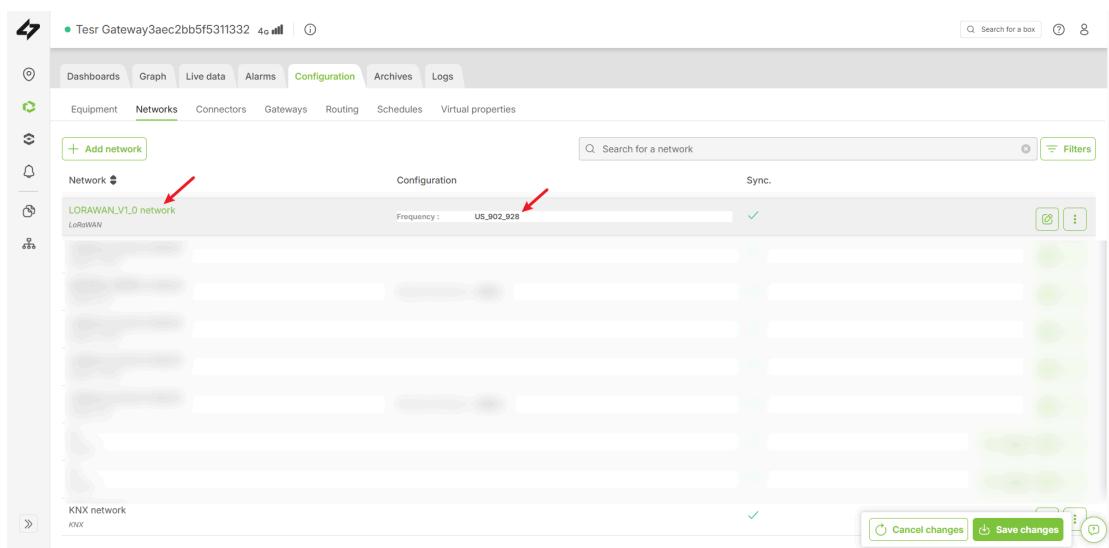
Navigate to: **Configuration** → **Networks**, then click "**Add network**" to create a new network configuration.

The screenshot shows the WattSense console interface for managing network configurations. The 'Configuration' tab is active. The 'Networks' section is selected, indicated by a red arrow labeled '3'. A red arrow labeled '4' points to the '+ Add network' button. Other tabs include Dashboards, Graph, Live data, Alarms, Configuration, Archives, and Logs. The sidebar on the left includes icons for Equipment (red arrow '1'), Networks, Connectors, Gateways, Routing, Schedules, and Virtual properties. A search bar at the top right allows searching for networks.



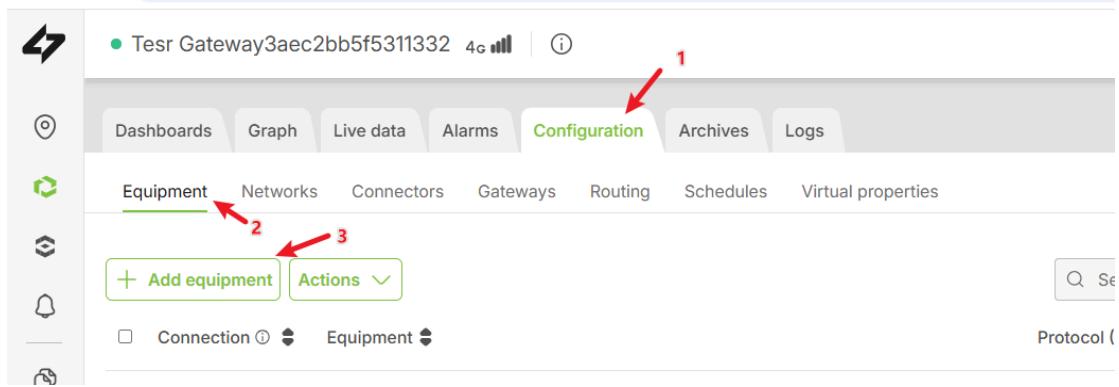
Make sure to select the correct Frequency , choose **US\_902\_928** as shown.  
Take note of the Name you enter here, as it will be used in later steps.  
Click "**Save**" when done.

The result should look like this:

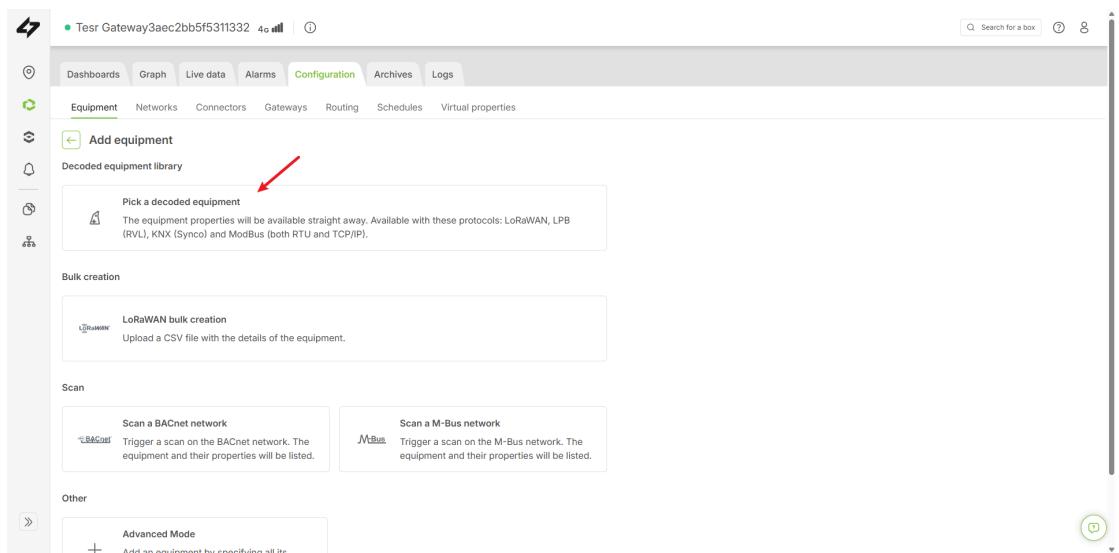


## 5. Add LoRaWAN Device

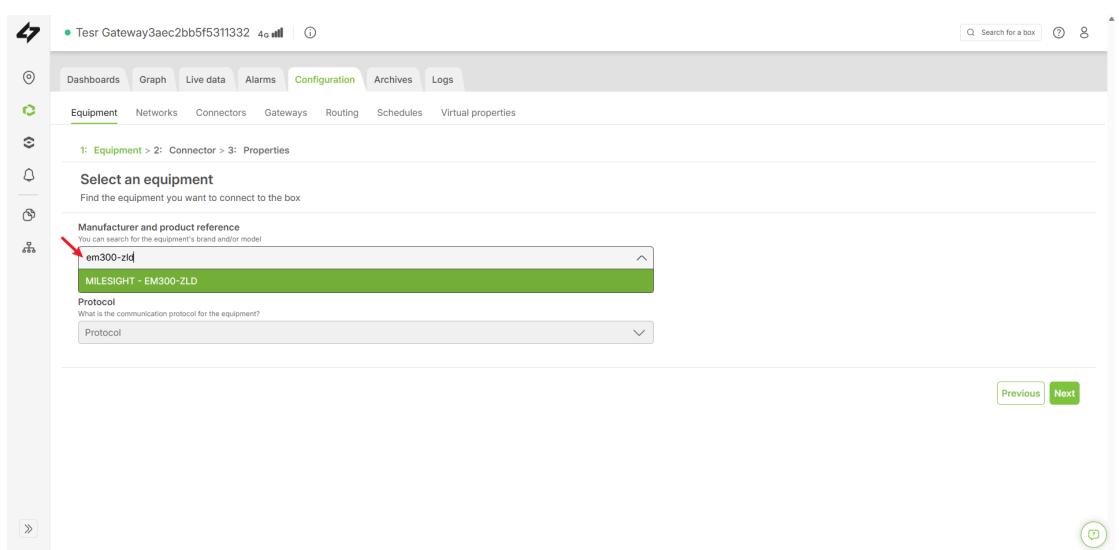
Navigate to: **Configuration** → **Equipment**, and click "**Add equipment**" as shown:



In the popup, select "**Pick a decoded equipment**":



Then, in the "**Manufacturer and product reference**" field, enter "**EM300-ZLD**".  
The platform will automatically match the model:



Next, fill in the LoRa parameters of your EM300-ZLD sensor based on your actual device:

1: Equipment > 2: Connector > 3: Properties

### Select an equipment

Find the equipment you want to connect to the box

Manufacturer and product reference  
You can search for the equipment's brand and/or model

MILELIGHT - EM300-ZLD

If you can't find the equipment, request it to us by [clicking here!](#)

Protocol  
What is the communication protocol for the equipment?

LoRaWAN

### How to address the equipment

What is the configuration from the equipment so the box can communicate with it?

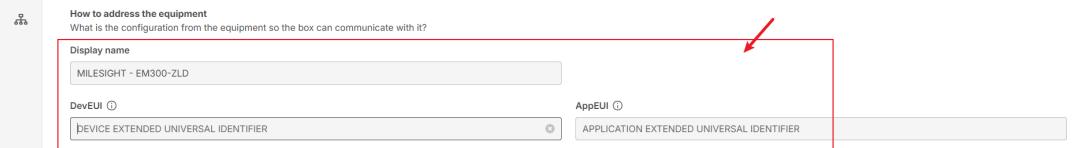
Display name  
MILELIGHT - EM300-ZLD

DevEUI ⓘ  
DEVICE EXTENDED UNIVERSAL IDENTIFIER

AppEUI ⓘ  
APPLICATION EXTENDED UNIVERSAL IDENTIFIER

Application Key  
APPLICATION KEY

Advanced ▶



Previous Next

Below is the parameter mapping for reference. These parameters are based on mine test device.

You should enter your own device's parameters:

1: Equipment > 2: Connector > 3: Properties

## Select an equipment

Find the equipment you want to connect to the box

**Manufacturer and product reference**  
You can search for the equipment's brand and/or model  
**MILESIGHT - EM300-ZLD**  
[If you can't find the equipment, request it to us by clicking here!](#)

**Protocol**  
What is the communication protocol for the equipment?  
**LoRaWAN**

**How to address the equipment**  
What is the configuration from the equipment so the box can communicate with it?

**Display name**  
**lockon - MILESGHT - EM300-ZLD**

**DevEUI** ⓘ  
**24E124136C403852**

**Application Key**  
**5572414C697E6B4C6F52613230123999**

**Advanced ▾**

**Milesight**

ToolBox V7.0.14

**Basic Channel**

**Status**

**Device EUI**: 24E124136C403852

**App EUI**: 24E124C0002A0001

**Application Port**: 55

**Join Type**: OTAA

**LoRaWAN Version**: V1.3.1

**Class**: Class A

**Application Key**: 5572414C697E6B4C6F52613230123999

**DR0 Data Rate**: DR5 (SF12, 125 KHz)

**DR2 Frequency**: 917000000

**Spiral Factor**: SF9 (CR2)

**Confirmed Mode**:

**Rejoin Mode**:

**Set the number of packets send**: 1 packets

**AZI Mode**:

**TSPower**: TSPower22 dBm

Click the “**Next**” button in the bottom-right corner to proceed.

On the next screen, configure the Properties parameters, it's recommended to select all of them and then click "**Save**", as shown below:

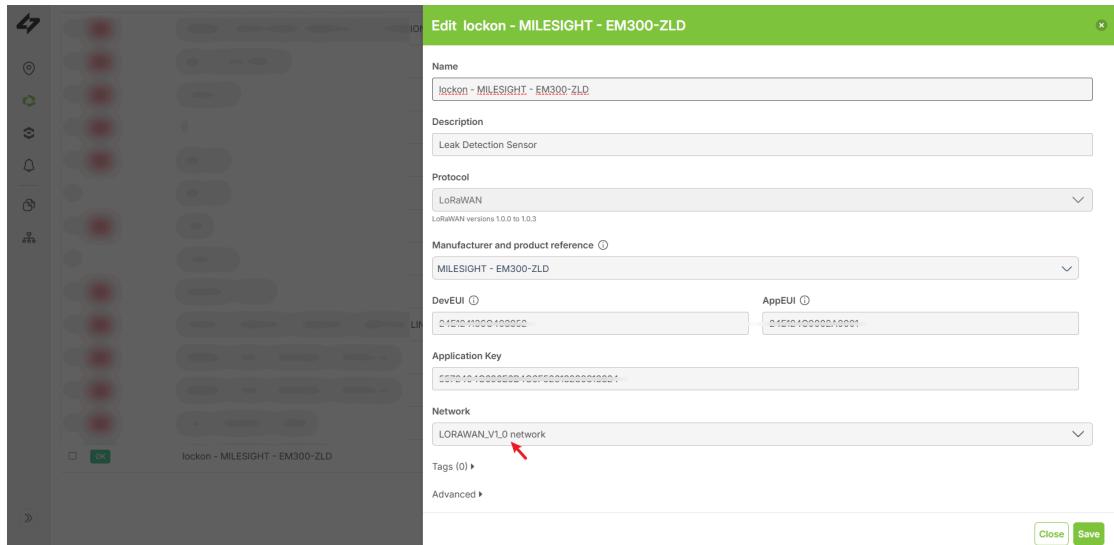
The screenshot shows the 'Properties' section of the configuration interface. A red arrow points to the 'Save' button at the bottom left of the table. Another red arrow points to the 'Name' checkbox in the table header.

	Equipment	Unit	Read/Write
<input checked="" type="checkbox"/> Name	MILESIGHT	%	Read
<input checked="" type="checkbox"/> Battery level	MILESIGHT		Read
<input checked="" type="checkbox"/> Encoded downlink message	MILESIGHT		Write
<input checked="" type="checkbox"/> Frame counter	MILESIGHT		Read
<input checked="" type="checkbox"/> Humidity	MILESIGHT	%	Read
<input checked="" type="checkbox"/> Raw encoded payload	MILESIGHT		Read
<input checked="" type="checkbox"/> Received Signal Strength Indication (RSSI)	MILESIGHT	dBmW	Read
<input checked="" type="checkbox"/> Signal Noise Ratio (SNR)			

At this point, the EM300-ZLD has been successfully added. After a short wait, the device will automatically join the network, and the platform will display its status as shown:

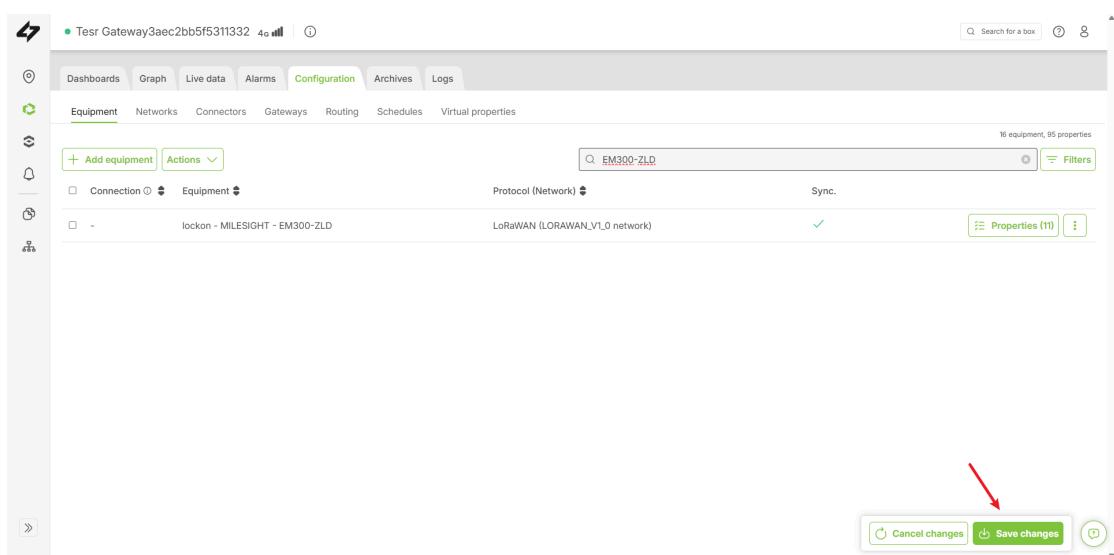
The screenshot shows the 'Equipment' list screen. A red arrow points to the search bar containing 'EM300-ZLD'. Another red arrow points to the green checkmark icon next to the device entry.

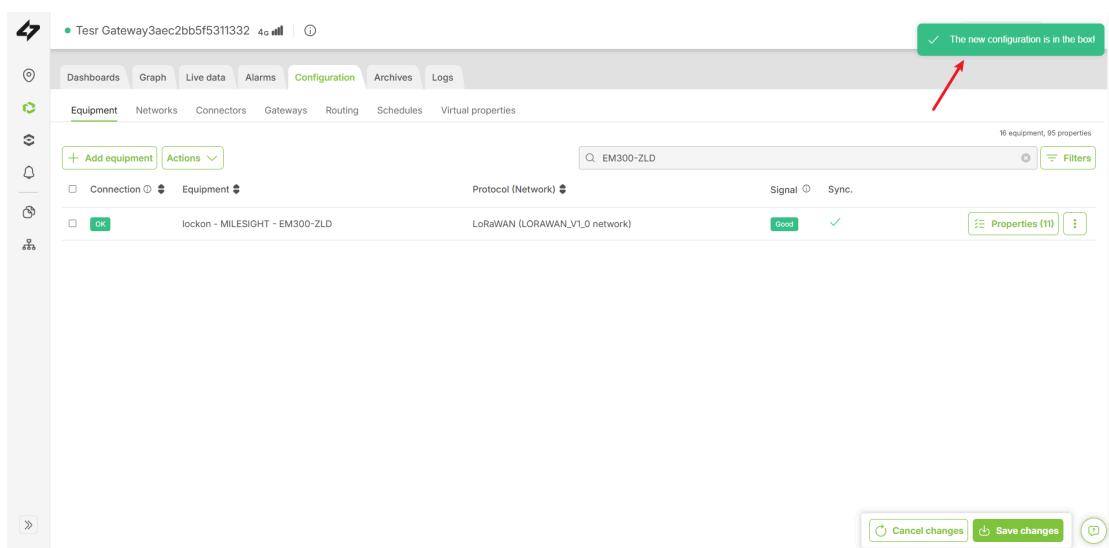
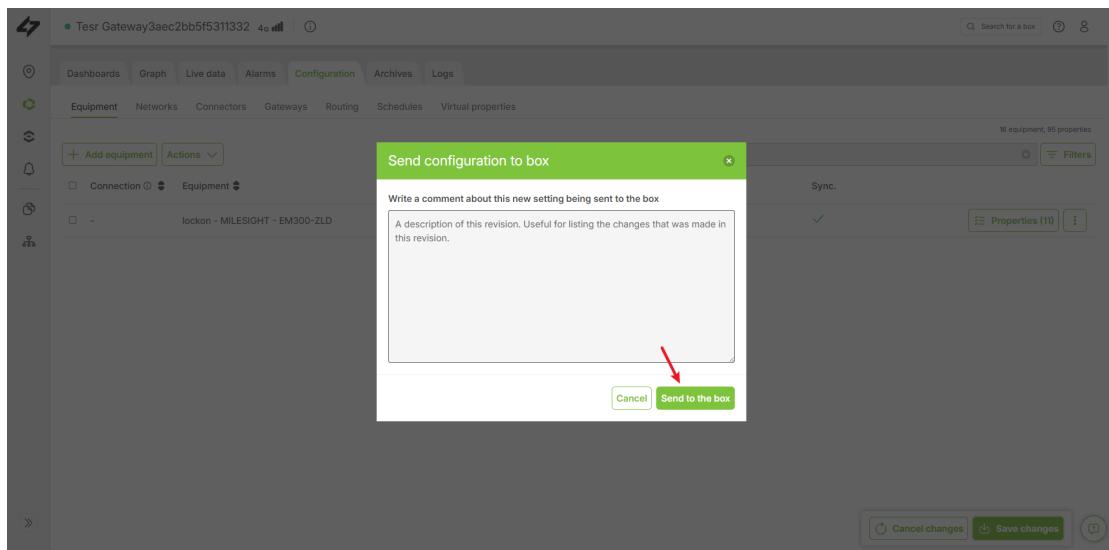
Protocol (Network)	Sync.	Actions
lockon - MILESIGHT - EM300-ZLD	✓	<input checked="" type="button"/> Properties (11) <input type="button"/>



Next, you need to push all the configuration parameters from the cloud to your physical Wattsense device.

Refer to the screenshot below:





You should see the **Connection** status as "OK", **Signal** as "Good", and Sync status in a normal (**healthy**) color.

## 6. Check Data Status

Follow the operation shown in the image:

The screenshot shows the ThingWorx interface with the 'Live data' tab selected. The left sidebar lists various equipment and their properties. The main area displays real-time data for the 'lockon - MILESGHT - EM300-ZLD' device. A red box highlights the data table, and three red arrows point to specific rows:

- Arrow 1 points to the first row: **Battery level** (lockon - MILESGHT - EM300-ZLD)
- Arrow 2 points to the second row: **Temperature** (lockon - MILESGHT - EM300-ZLD)
- Arrow 3 points to the third row: **Humidity** (lockon - MILESGHT - EM300-ZLD)

	Last Value
1 %	a minute ago
26.10 °c	a minute ago
43.50 %	a minute ago
False	a minute ago
9 dB	a minute ago
-71 dBmW	a minute ago
01750103670501046857050000:85	a minute ago

Here, you can see that the cloud platform is now receiving real-time data reported by the EM300-ZLD. This concludes the integration process.

-END-