How to Integrate Milesight Gateways and Devices into the UMA Platform

Version Change Log			
Version	Revision Date	Revision Details	Revised By
V1.0	20250310	Initial	Lockon
V1.1	20250326	1. Screenshots of the registration process of the platform are updated. 2. Adjust the creation logic of Building and Floor. 3. Screenshots of Monitor Data section	Lockon

Introduction

UMA is a technology service company headquartered in the UK, primarily providing information and communication technology solutions and business support services to enterprises. The company's services cover various fields such as telecommunications, management consulting, and administrative support, focusing on helping clients achieve digital transformation and operational efficiency improvements.

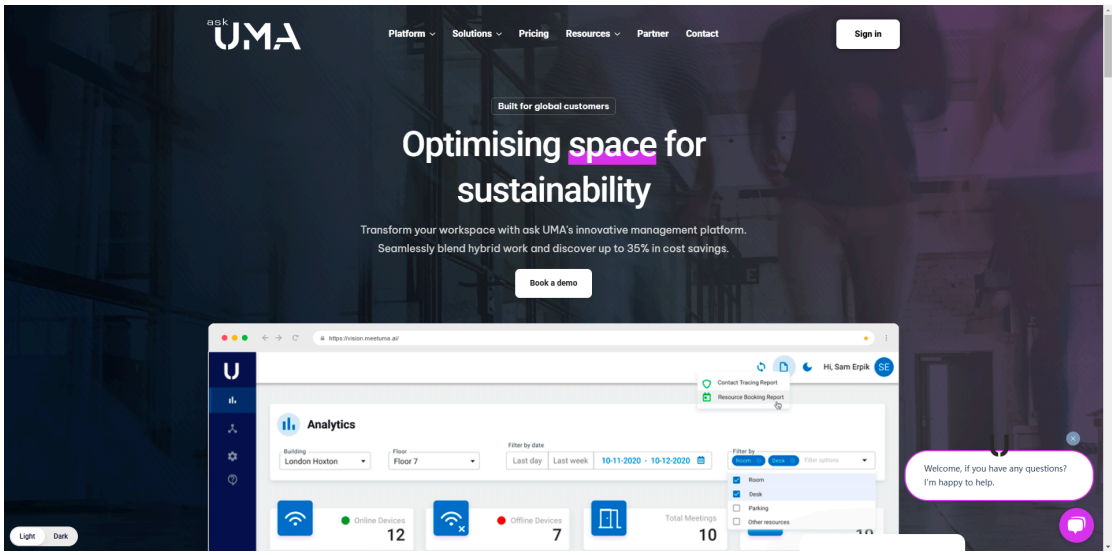
This document mainly introduces how to use the UG65 gateway to connect to the UMA platform, as well as how to add AM308 and AM319 devices as examples, including the Dashboard demonstrations.

1. Prerequisites

- **Gateway Models:** UG65 (Firmware version v60.0.0.45), or UG56, UG67
- **Sensor Models:** AM308 and AM319, Firmware version v1.6
- **Frequency Band Used in This Demonstration:** 915M (8-15 channel)

2. Register Account

Visit https://askuma.ai/, click the " **Book a demo** " button, and fill out the information as prompted.



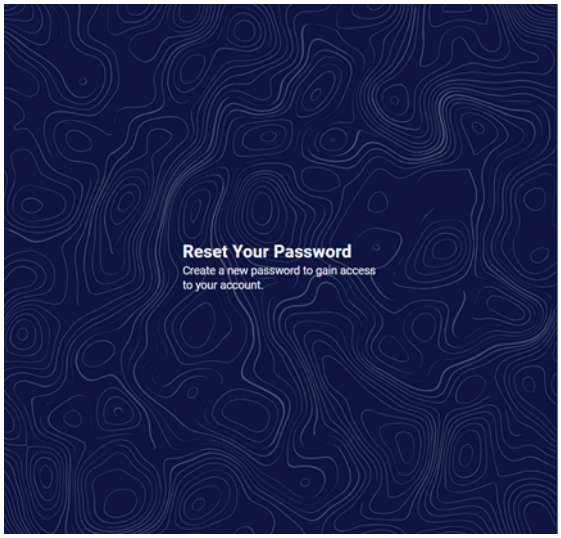
Once UMA's staff receives the request, they will contact you further, and you will receive account details and MQTT Broker configuration information assigned to your

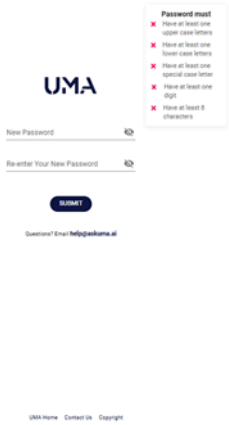
platform.

3. First Login Wizard

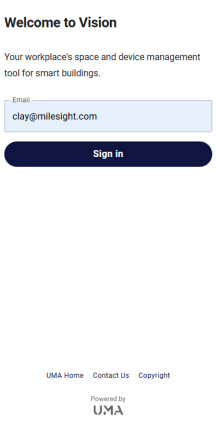
Once you have received an account creation email from UMA, click on the link to set up your company's subscription.

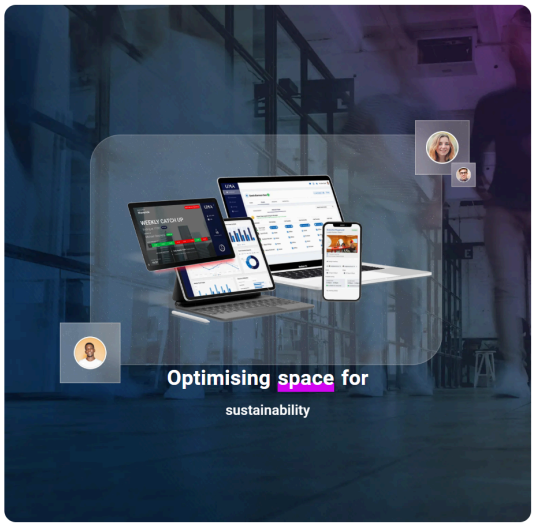
Set a **password**.





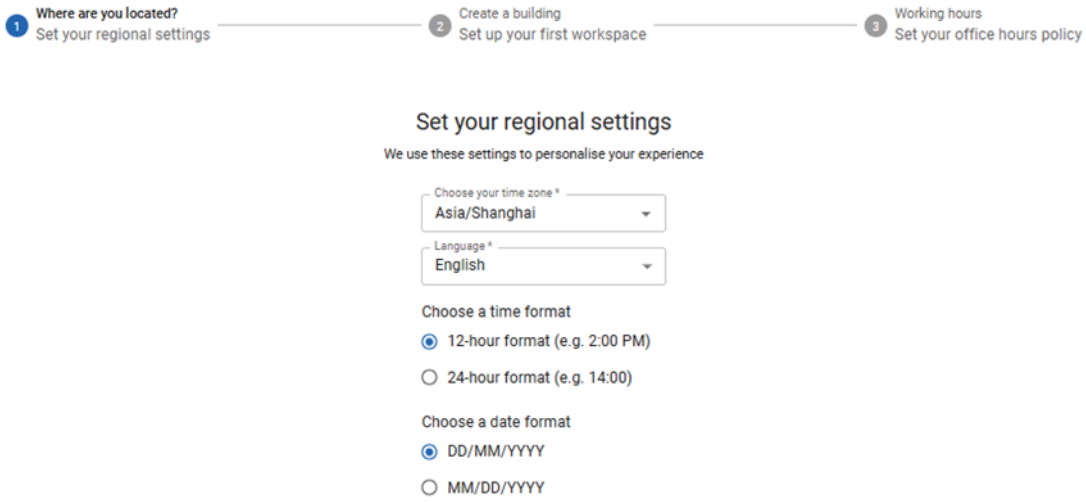
Visit **https://vision.meetuma.ai/login** to log in.





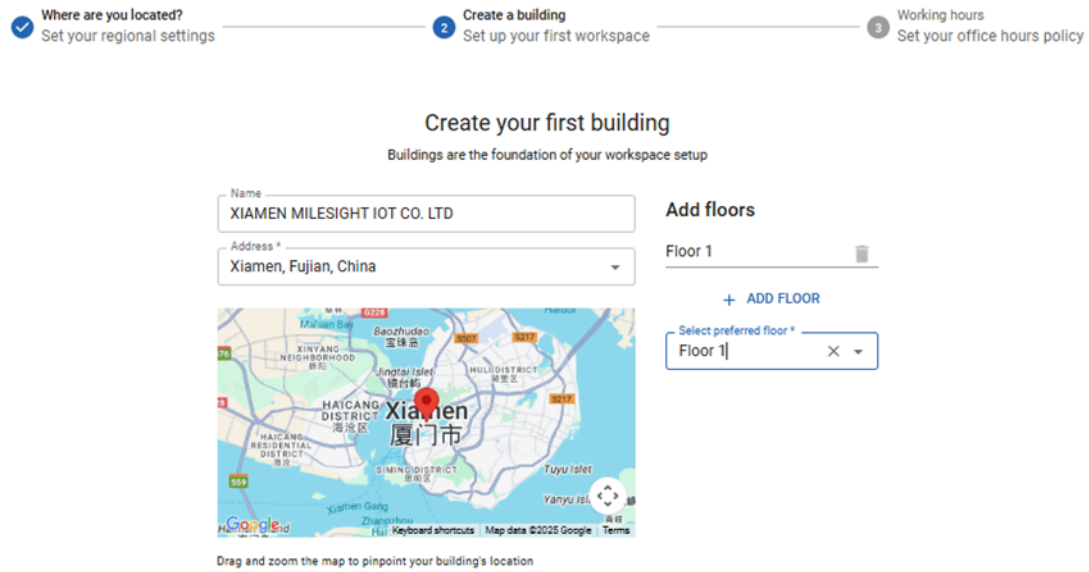
Follow the wizard to get started.

Set your company's regional settings.

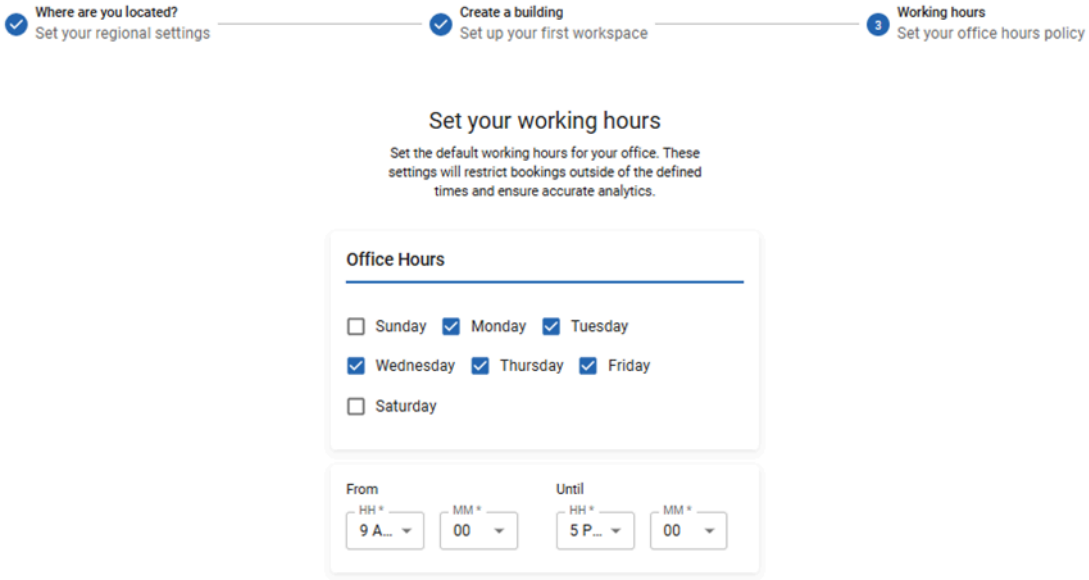


Create a building and floor(s) and your preferred floor (default floor for your user account).

For demonstration purposes, I've configured a **Milesight building** as an example.

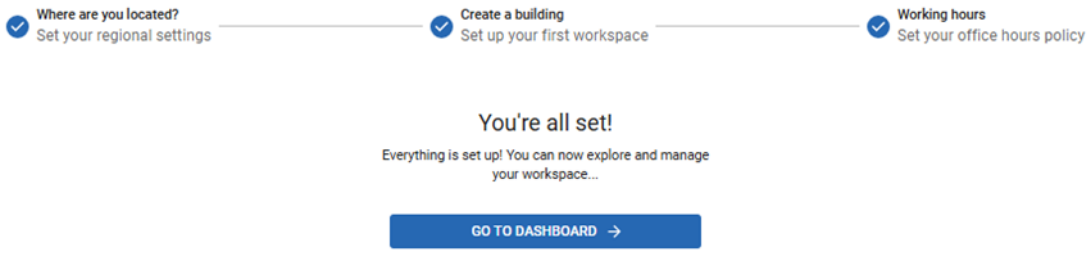


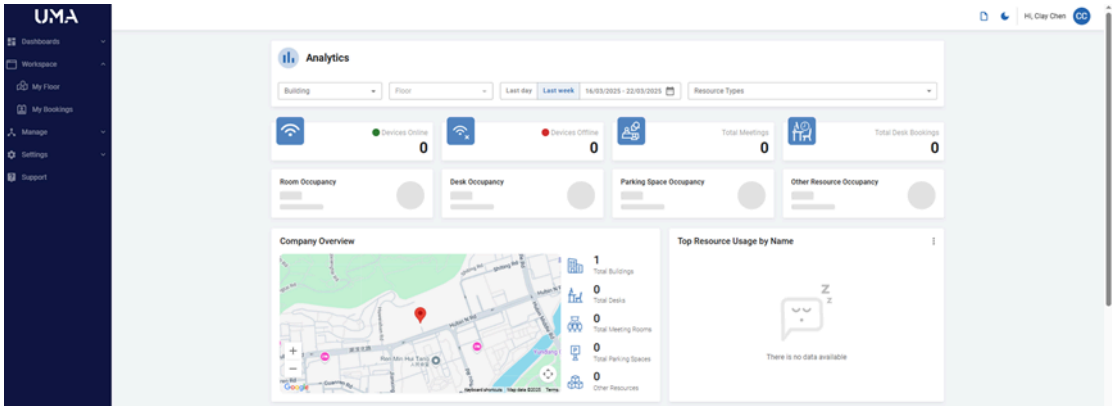
Set your company's working hours.



Click **Finish**.

Click **Go to Dashboard**.

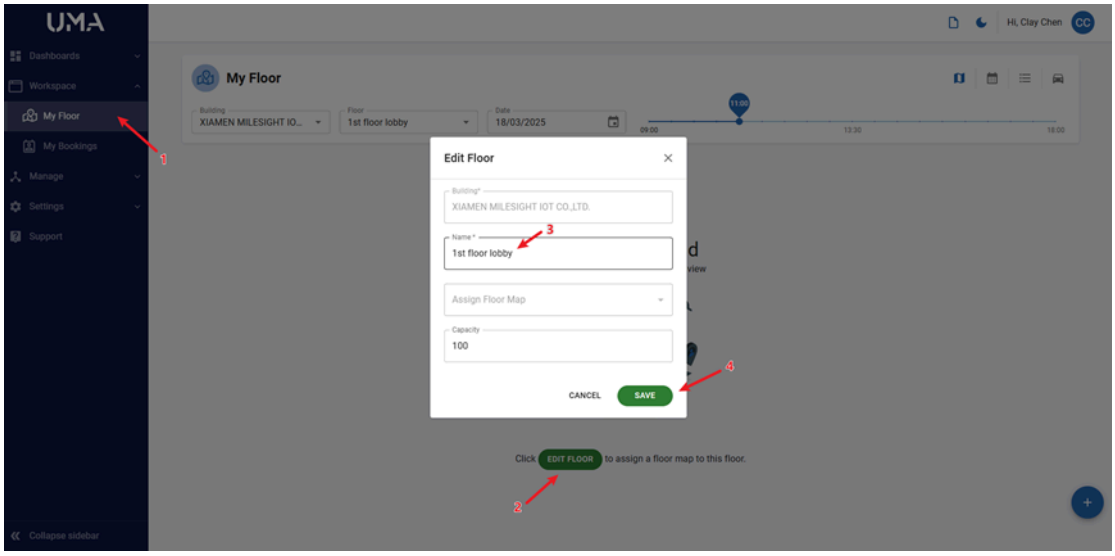




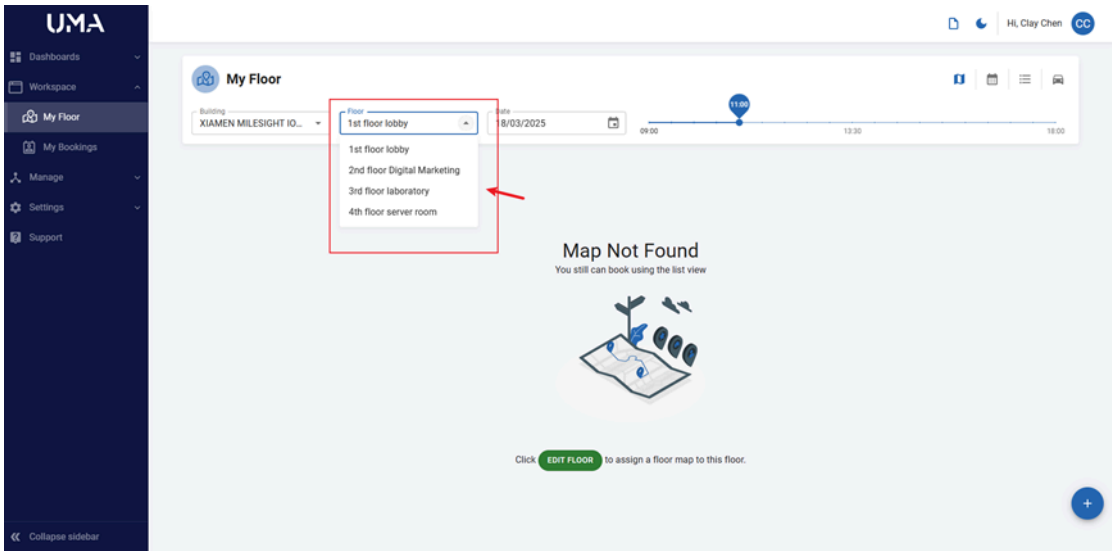
4. Create More Floors (Optional)

Next, create a Floor for the Building. For demonstration purposes, I've configured a Milesight building as an example.

Simply follow the steps shown in the screenshot:



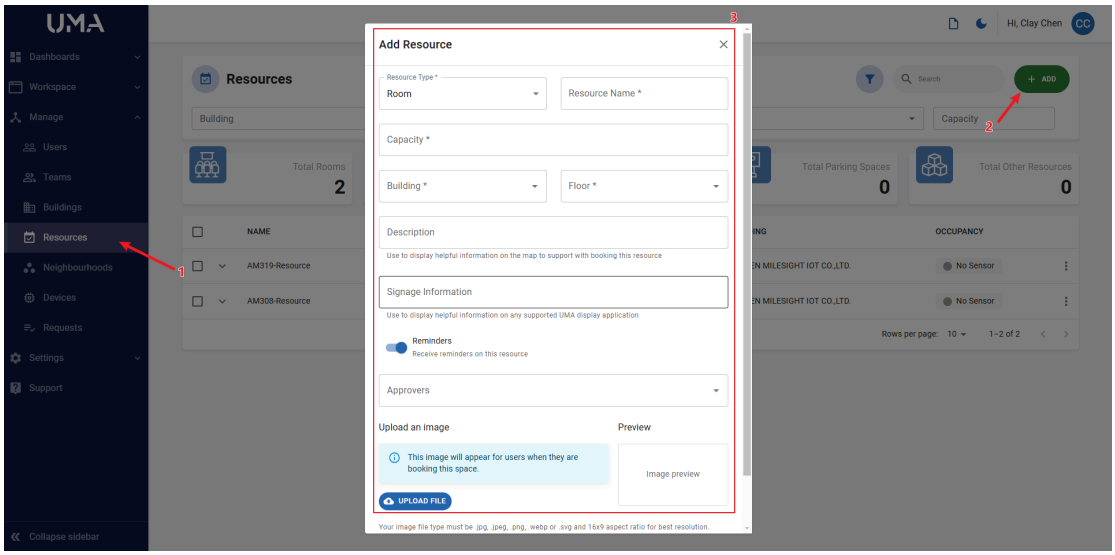
In this example, we've created 4 floors, and the devices used for this demonstration will all be added to the first floor:



5. Create Resources

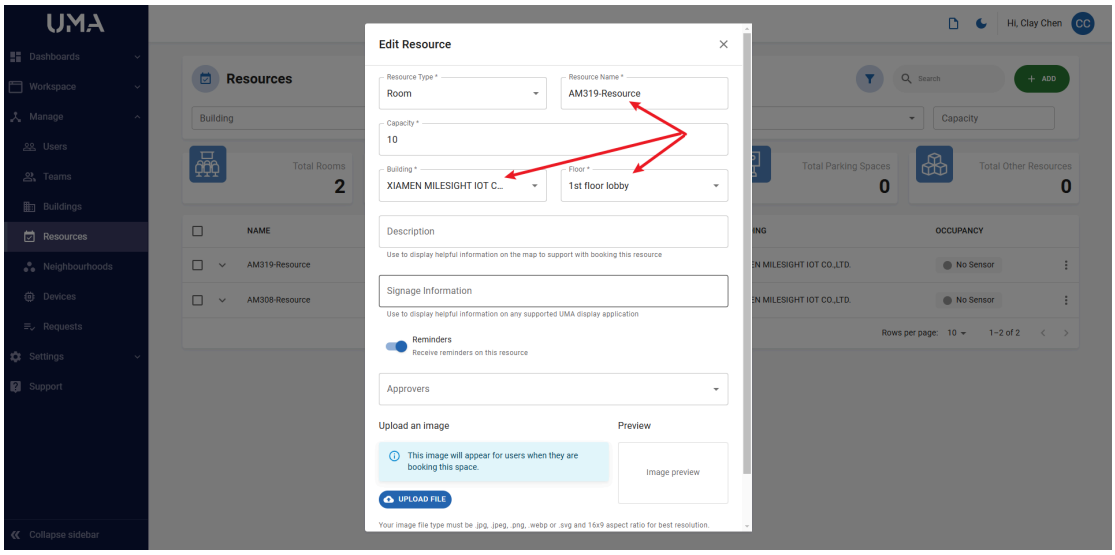
Now, create Resource records,and this step is mainly to configure the relationship between Sensors and Floors.

Follow the steps in the screenshot below:



Since we have two types of devices, we need to create two records, one for AM308 and one for AM319.

Below is a schematic of the relationship between **Sensors**, **Floors**, and **Buildings**:

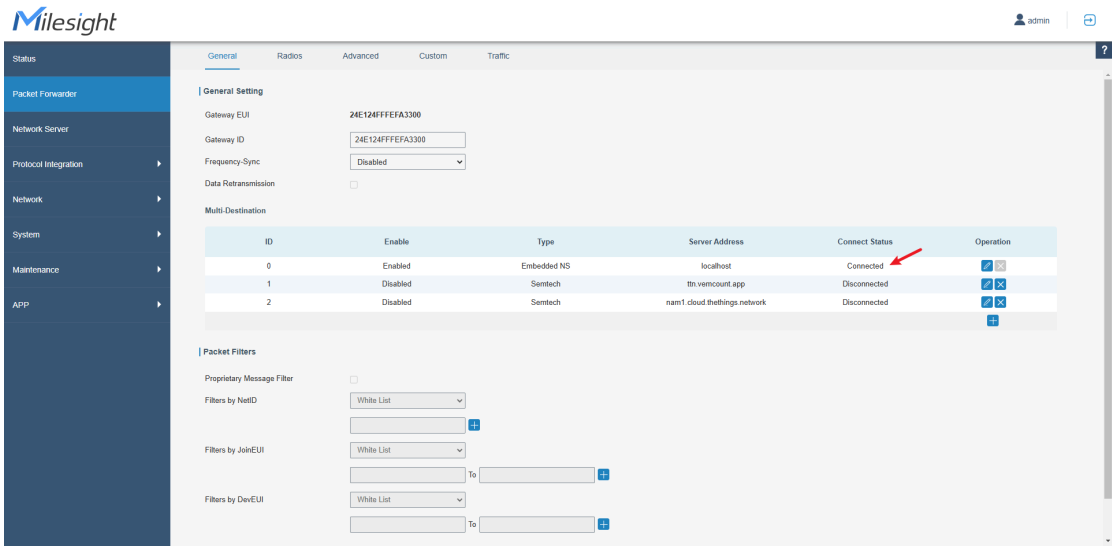


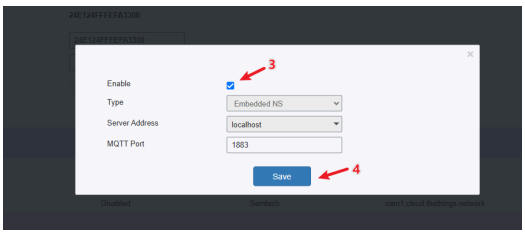
At this point, the basic configuration on the UMA platform is complete. Next, we will configure our gateway.

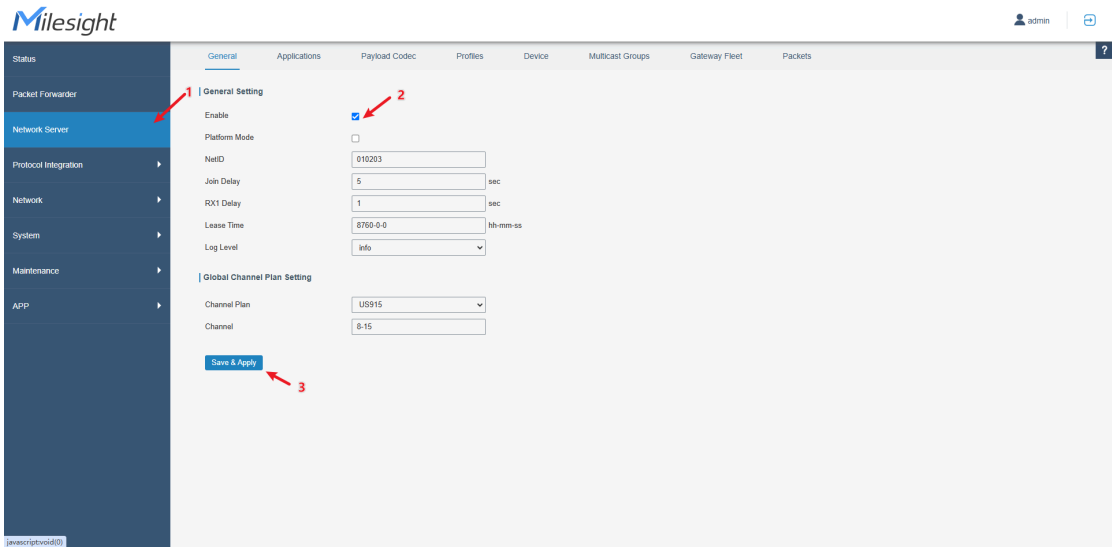
6. Configure Gateway

6.1. Enable Built-in NS:

First, follow the steps in the screenshot below to enable the built-in NS on the device:





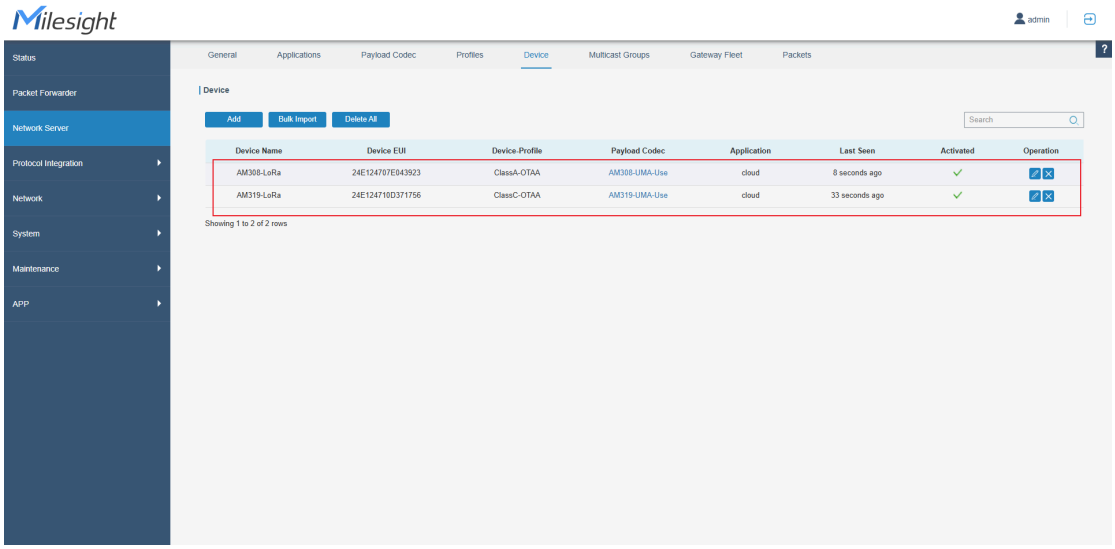


With that, the built-in NS on our gateway is now enabled.

6.2. Add AM308 and AM319

Follow the steps in <How to Connect LoRaWAN Nodes to Milesight Gateway> to add the devices.

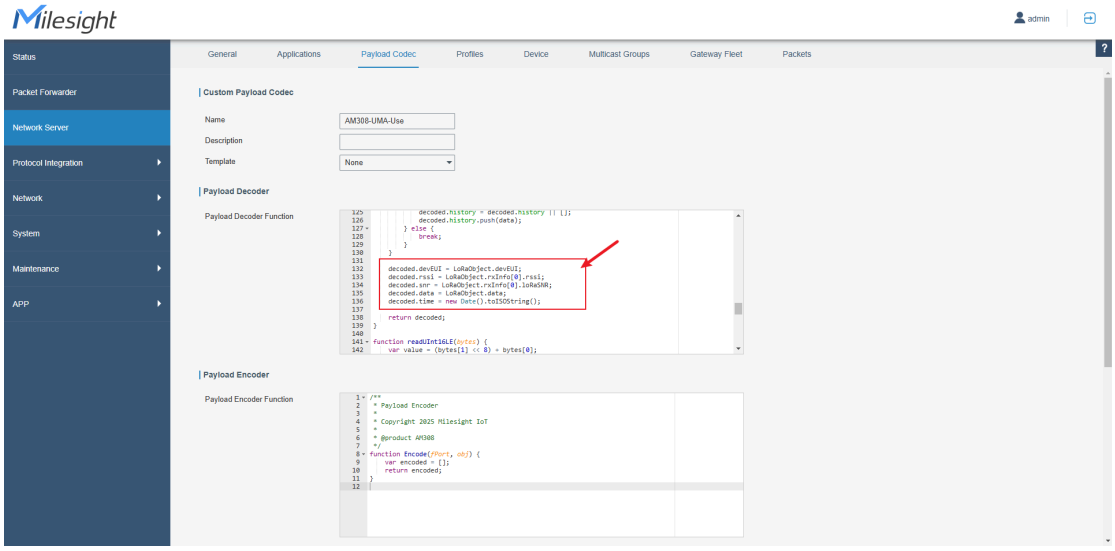
Once added, the status will look like this:



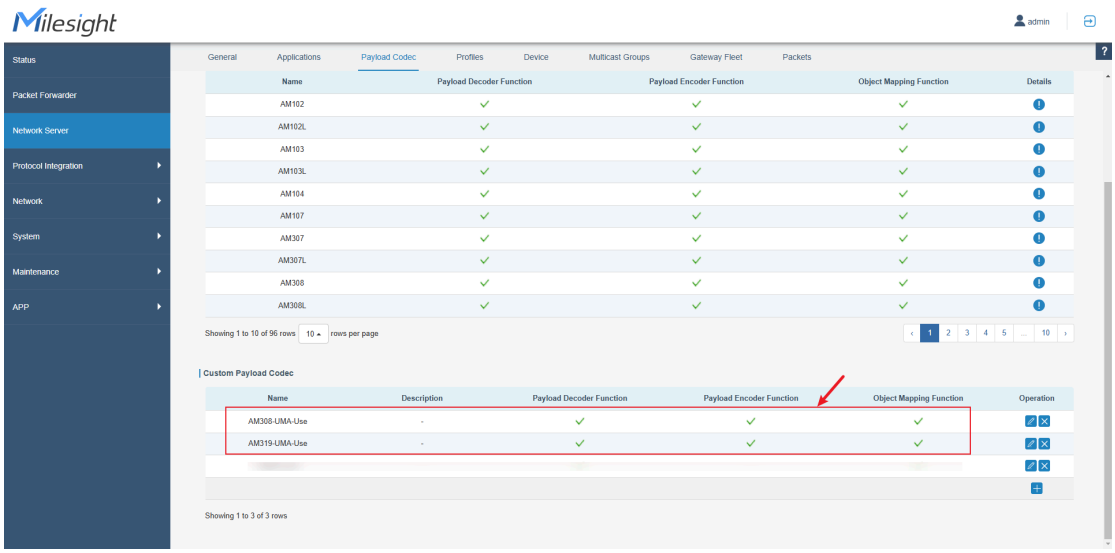
6.3. Create Custom Decode

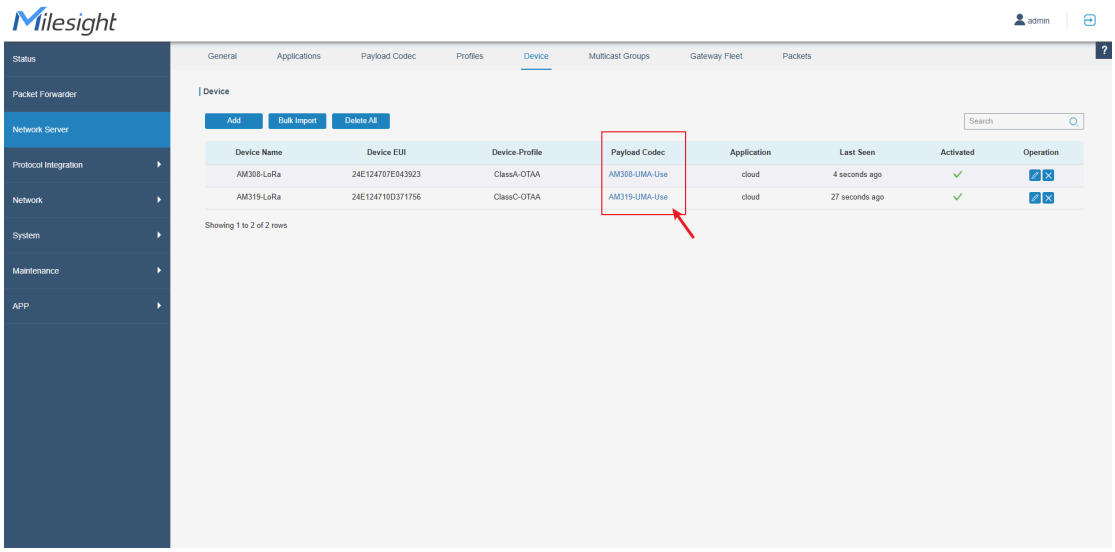
Follow the steps in <How to Use Payload Codec on Milesight Gateway> to create the decode. Additionally, modify the default Decode code as shown in the screenshot below (ensure to add the required code from the platform before the return decode statement):

```
decoded.devEUI = LoRaObject.devEUI;
decoded.rssi = LoRaObject.rxInfo[0].rssi;
decoded.snr = LoRaObject.rxInfo[0].loRaSNR;
decoded.data = LoRaObject.data;
decoded.time = new Date().toISOString();
```

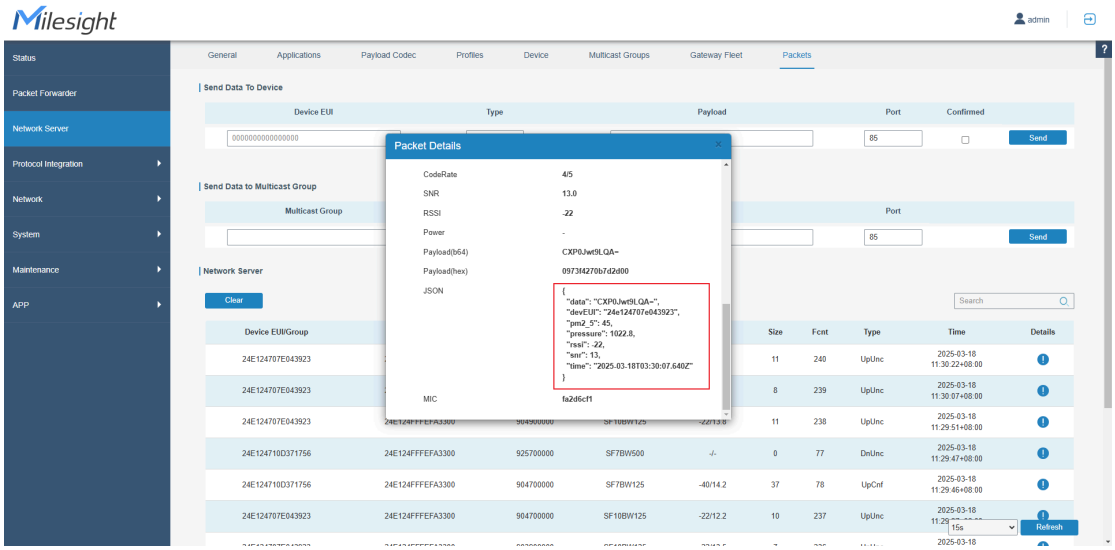


Similarly, for both AM308 and AM319, create separate Payload Codecs for each, as shown in the image:



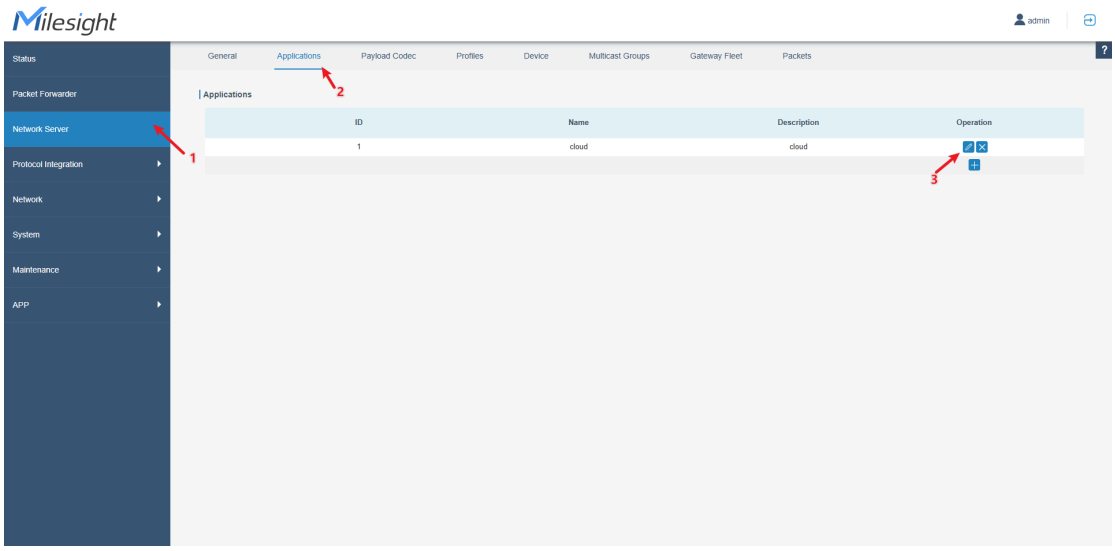


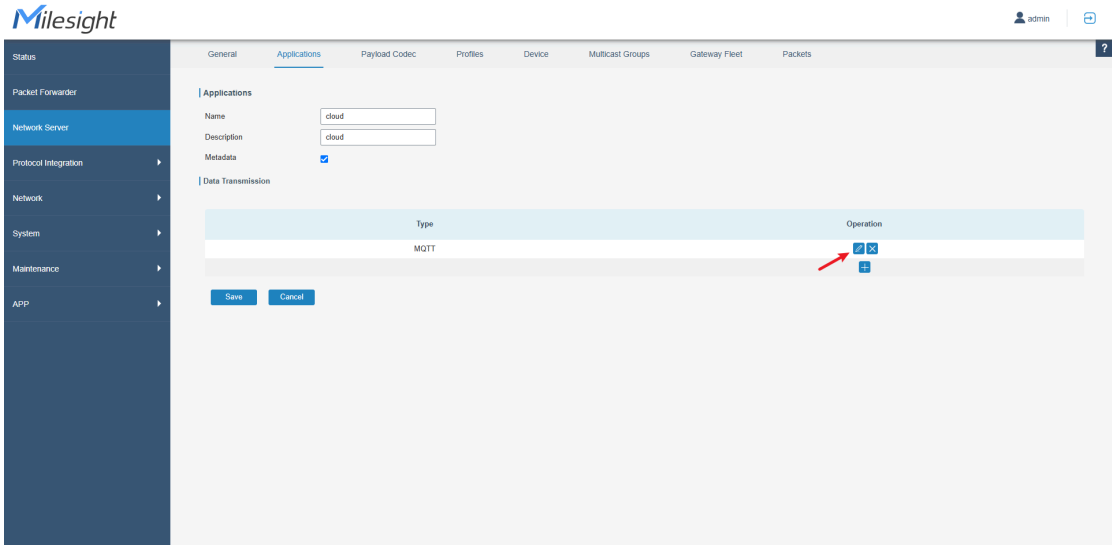
Once configured, the Payload structure for the Sensors should appear as shown below:



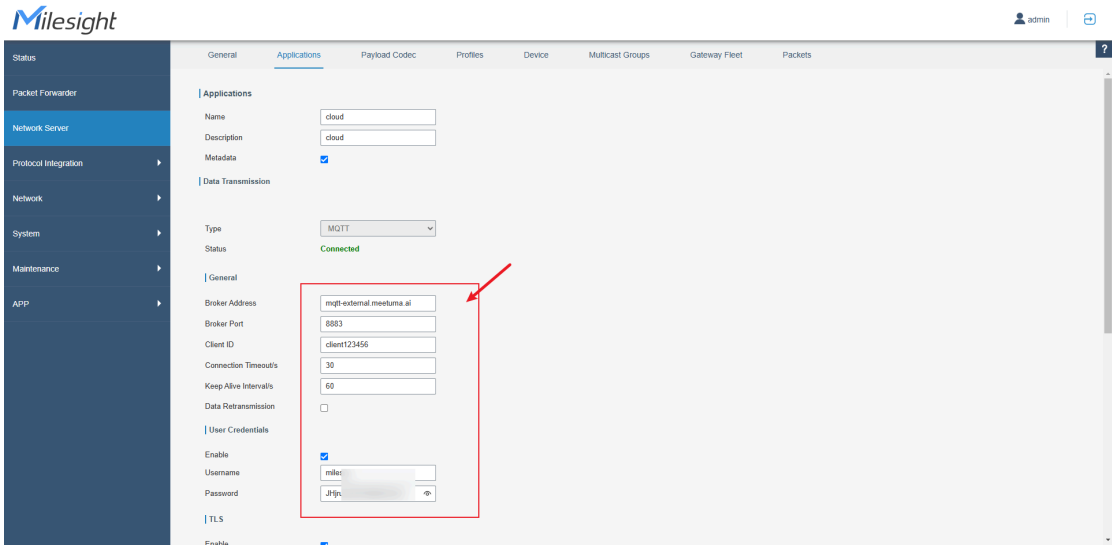
6.4. Configure MQTT Parameters

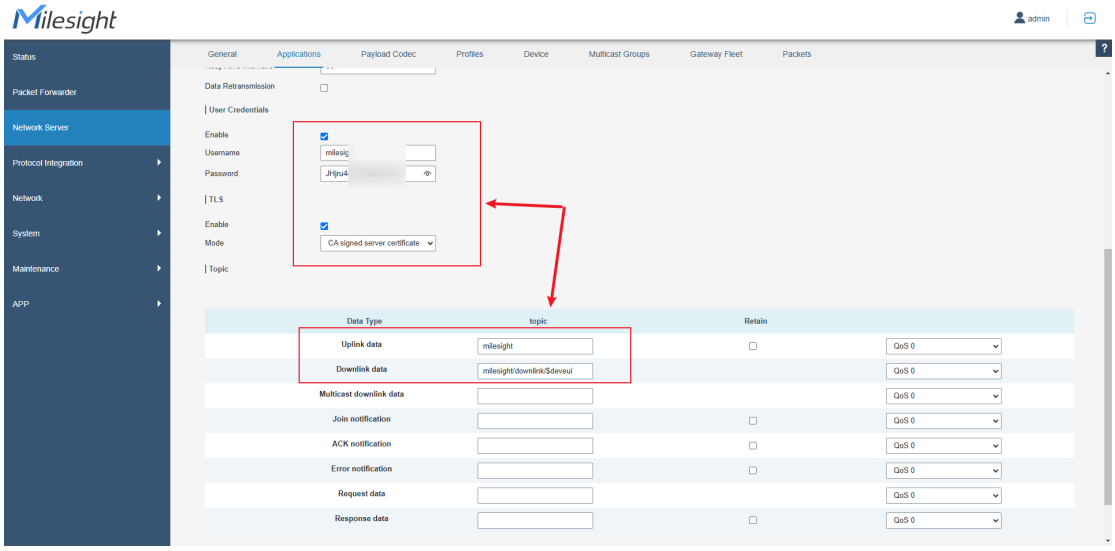
Follow the steps to navigate to the MQTT configuration page:





Fill out the relevant information as shown in the screenshot (use the MQTT Broker parameters from Step 2):





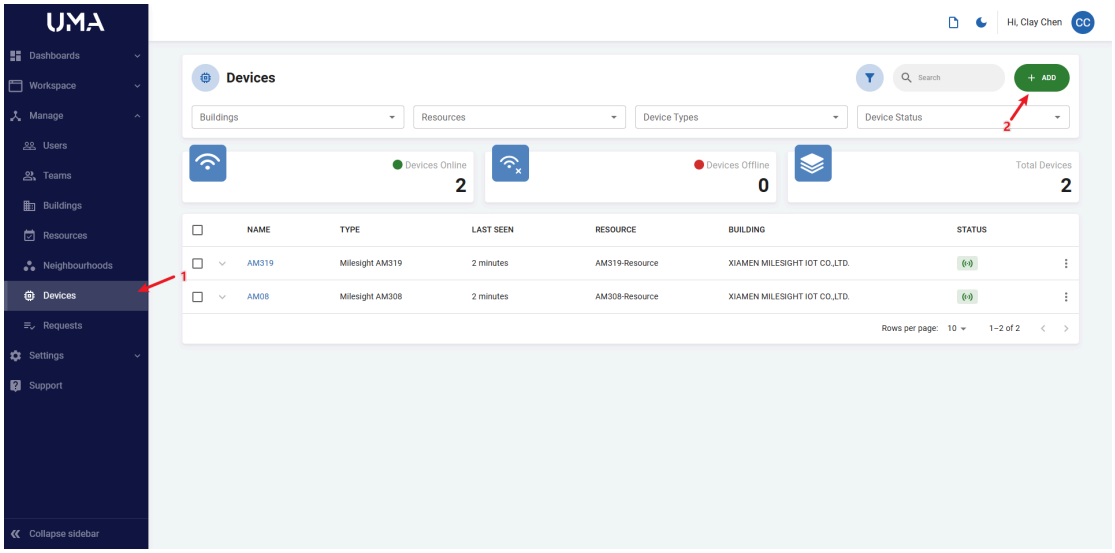
Note:

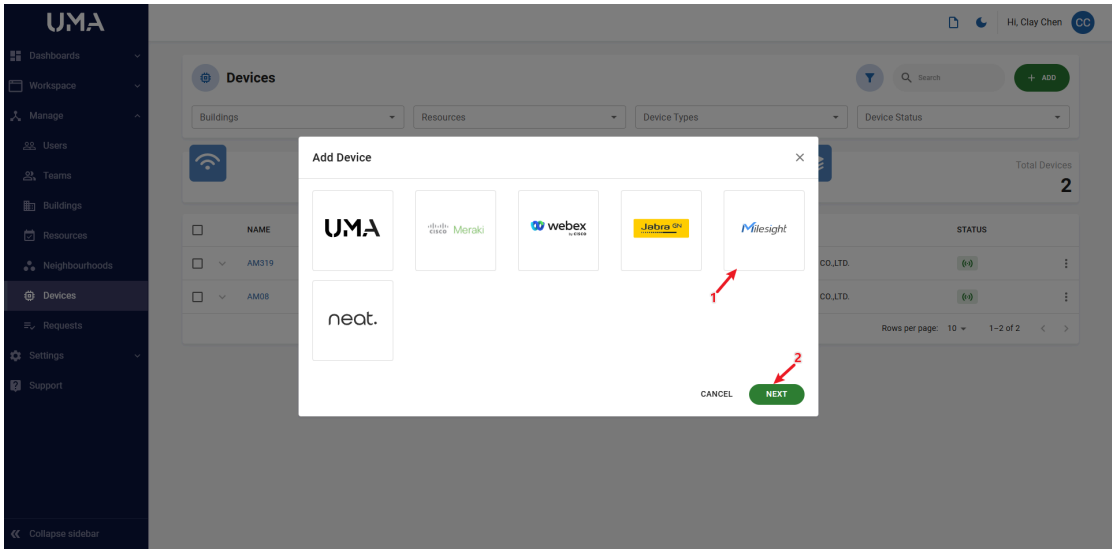
1. Do not check the **Data Retransmission** option.
2. The Uplink Topic path is **milesight**.
3. The Downlink Topic path is **milesight/downlink/$deveui**.

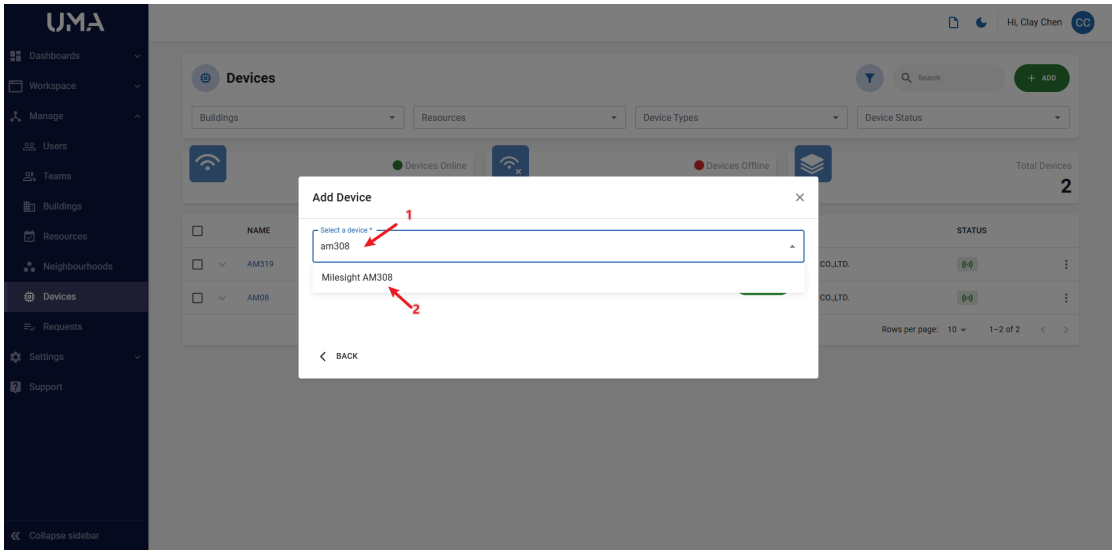
With this, the operations on our gateway are complete.

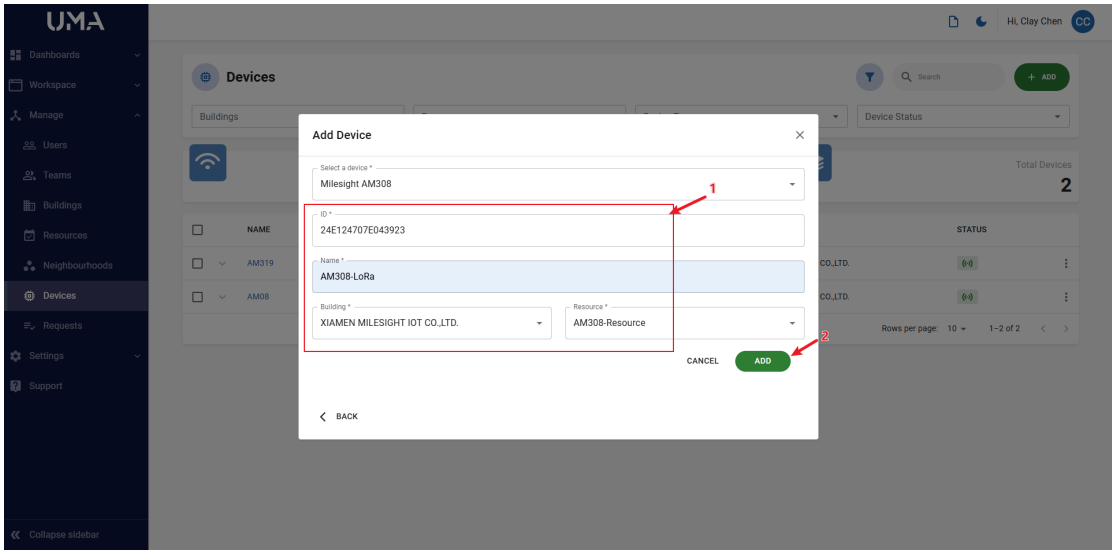
7. Add Device

Return to the UMA platform interface and follow the steps shown below:





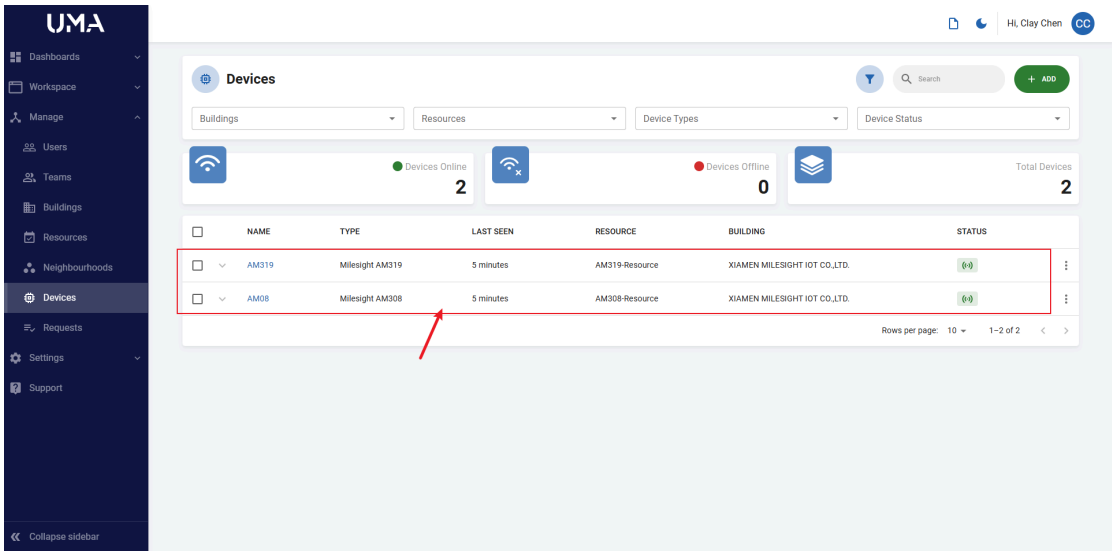


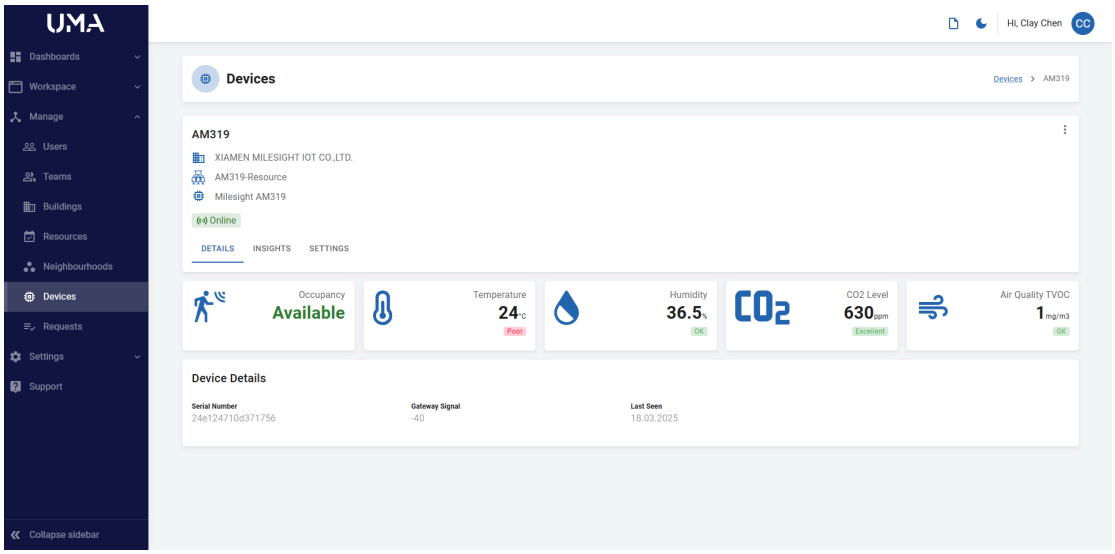


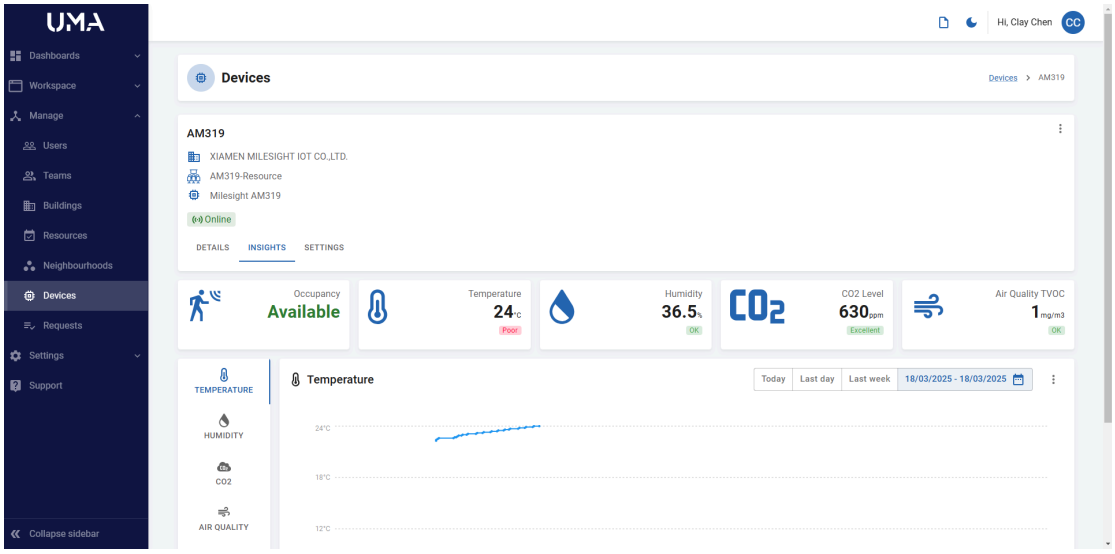
Note:

The **ID** here refers to the **Device EUI** data.

After clicking "**ADD**," the result will appear as follows:





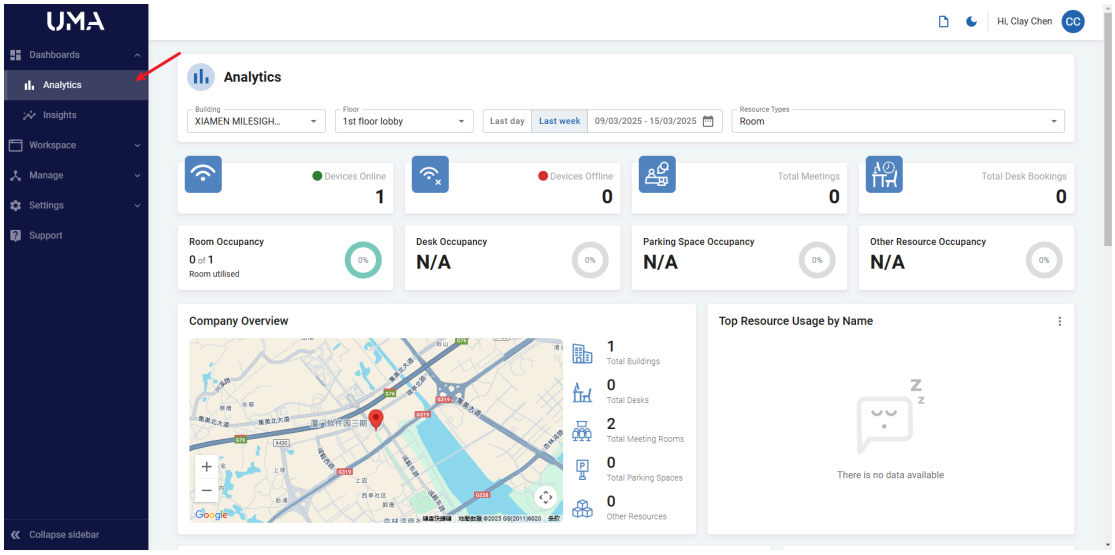


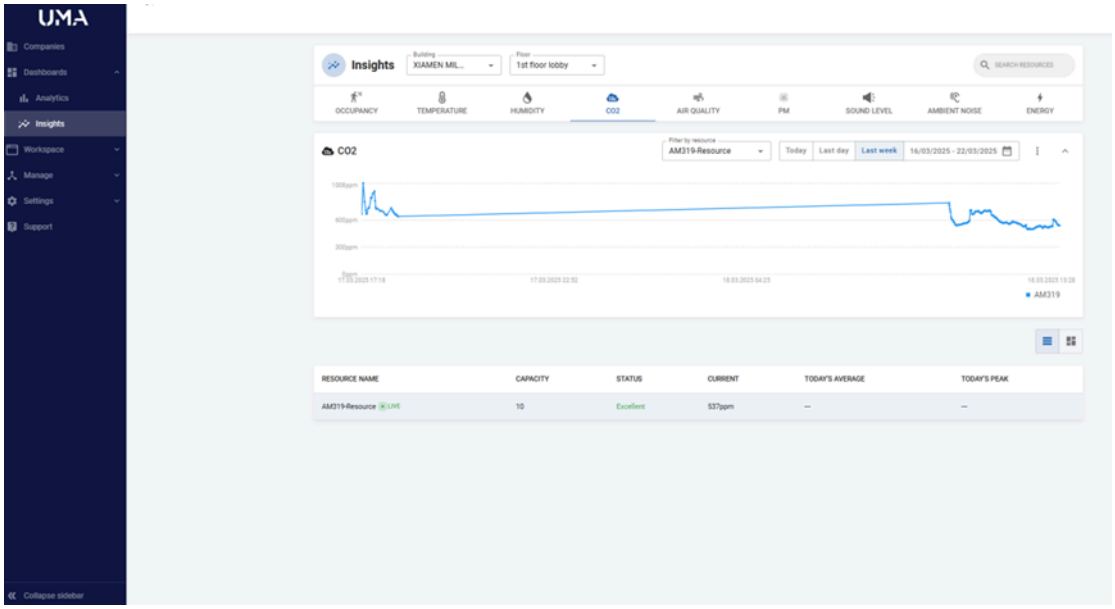
With this, we can see that the data from AM308 and AM319 devices are now

available on the platform.
The devices have been added successfully.

8. Monitor Data

Return to the homepage Dashboard.
You can now see the data from the configured Building, Floor, and Devices as shown below:





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