



Integrate Milesight Gateways and Devices into the OCTOBUS Platform



Version Change Log			
Version	Revision Date	Revision Details	Revised By
V1.0	20250513	Initial	Lockon



Introduction

Octobus is a technology company focused on the Internet of Things (IoT) and smart city solutions. It is dedicated to helping customers achieve efficient device connectivity, data collection, and intelligent analysis through advanced hardware and software platforms. Octobus offers an all-in-one service including device access, remote monitoring, data visualization, and alarm notifications, and is widely used in fields such as energy management, environmental monitoring, and industrial automation. The company greatly enhances deployment flexibility and system compatibility by supporting various communication protocols (e.g., LoRaWAN, NB-IoT, Modbus) and seamless integration with mainstream cloud platforms. In addition to its emphasis on technological innovation, Octobus is committed to providing customers with a stable, reliable, and scalable IoT infrastructure to help them advance toward digital transformation and smart management.

This document mainly describes how to connect a UG65 gateway to the OCTOBUS platform (via a third-party LNS, specifically the TTN platform), and how to synchronize an AM319 device as an example on the OCTOBUS platform.

Note: The AM319 device mentioned here is only used for demonstration purposes and does not imply that other types of sensors are unsupported. Readers should adapt the steps based on their actual situation.

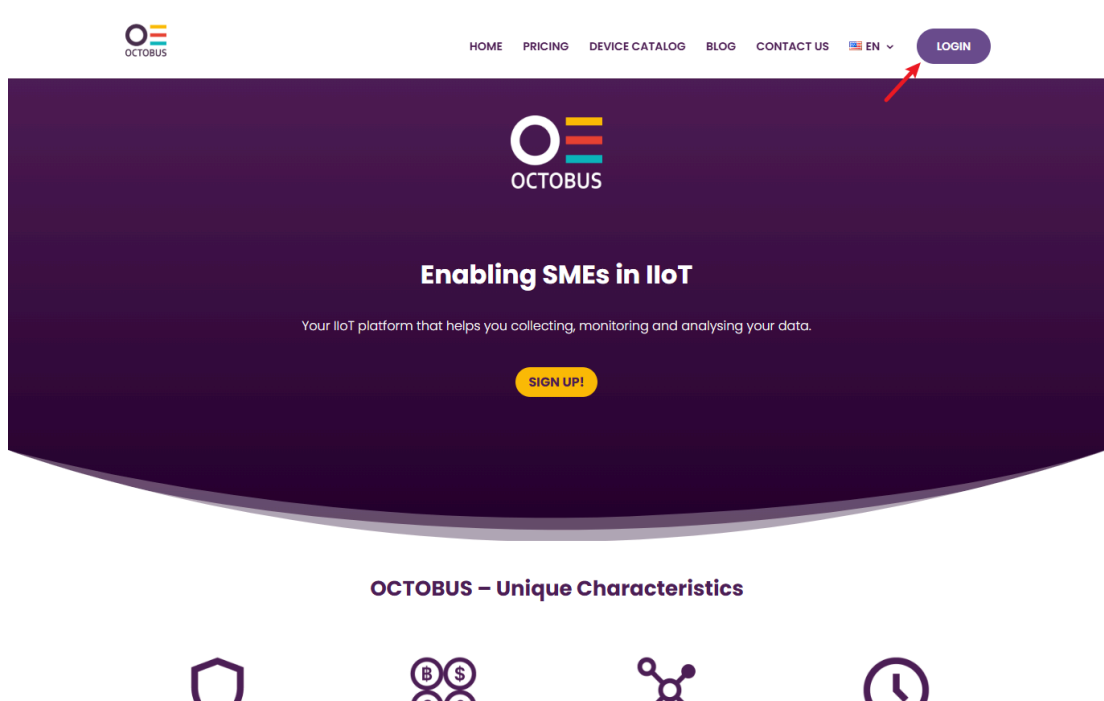
1. Prerequisites

- **Gateway model:** UG65 (UG56, UG67, or UG63 are also supported)
- **Sensor model:** AM319
- **Frequency band used in this demo:** US915
- **Gateway must be connected to the Internet**

2. Register an Account

Go to <https://octobus.asia/> and click the “**LOGIN**” button:

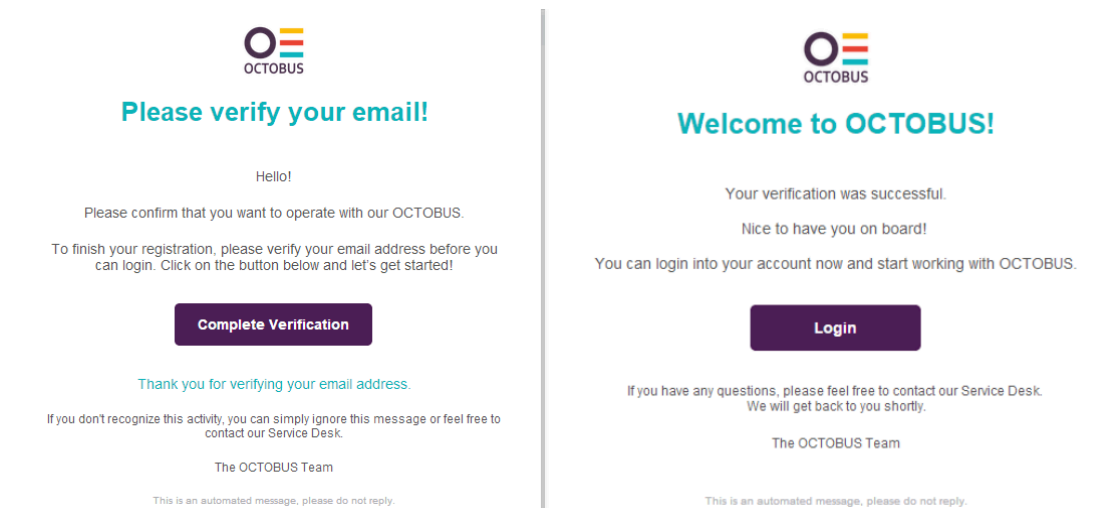




Since this is the first visit, fill in the registration information as prompted on the page:

After submission, an activation email will be sent to your inbox.
Click the activation link to start using the platform:



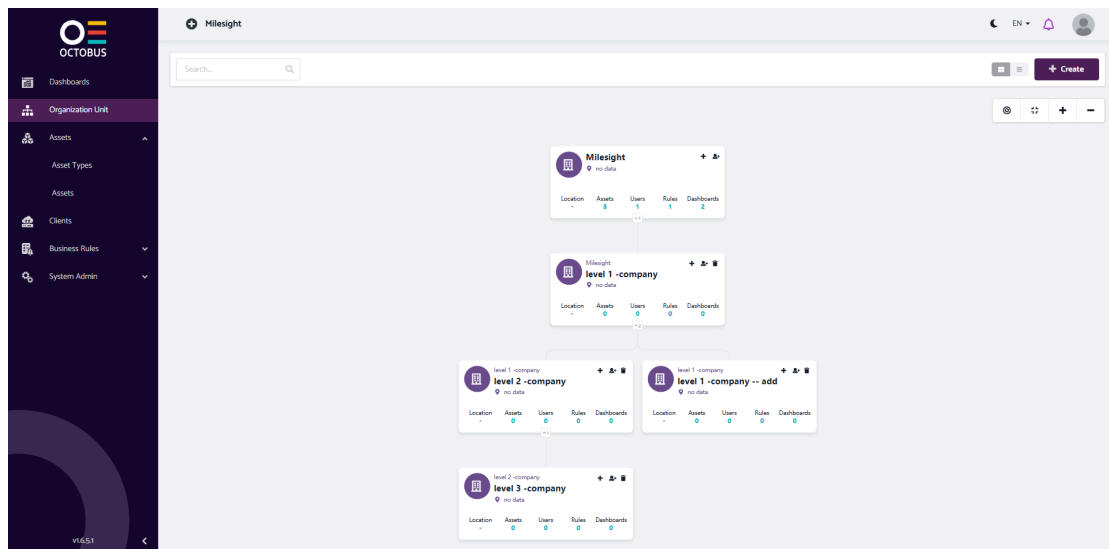


3. First Login

Click the “Login” link in the email, then enter your credentials to log in.

Next, it is recommended to first create your own Organization Unit. All your sensors, assets, and other related information will be registered under this organization. The platform also supports multi-level organization hierarchies. After creation, the result should look like this:



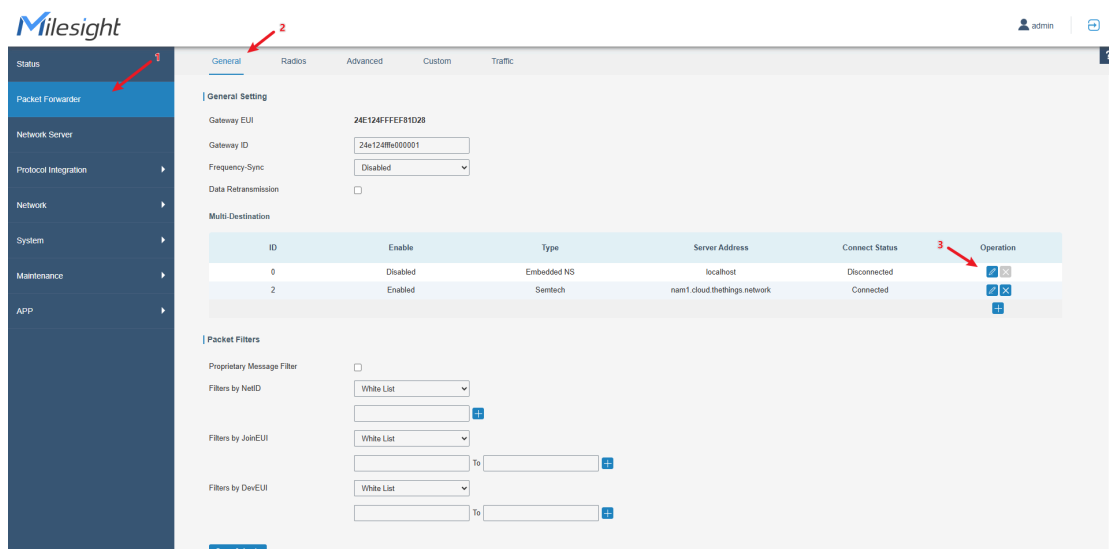


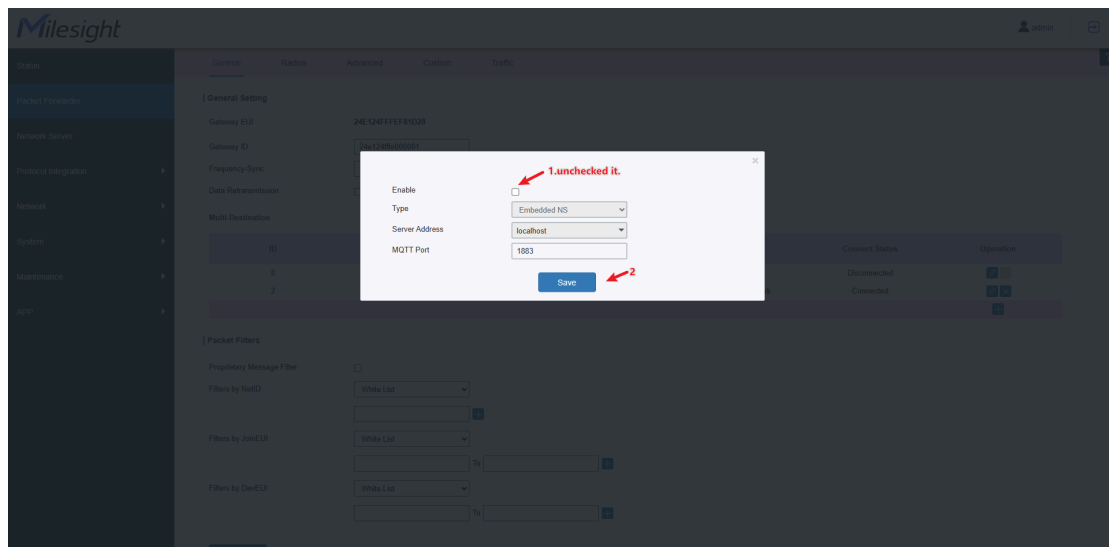
Now your account has been prepared, and we can begin configuring the gateway and TTN platform.

4. Gateway Configuration

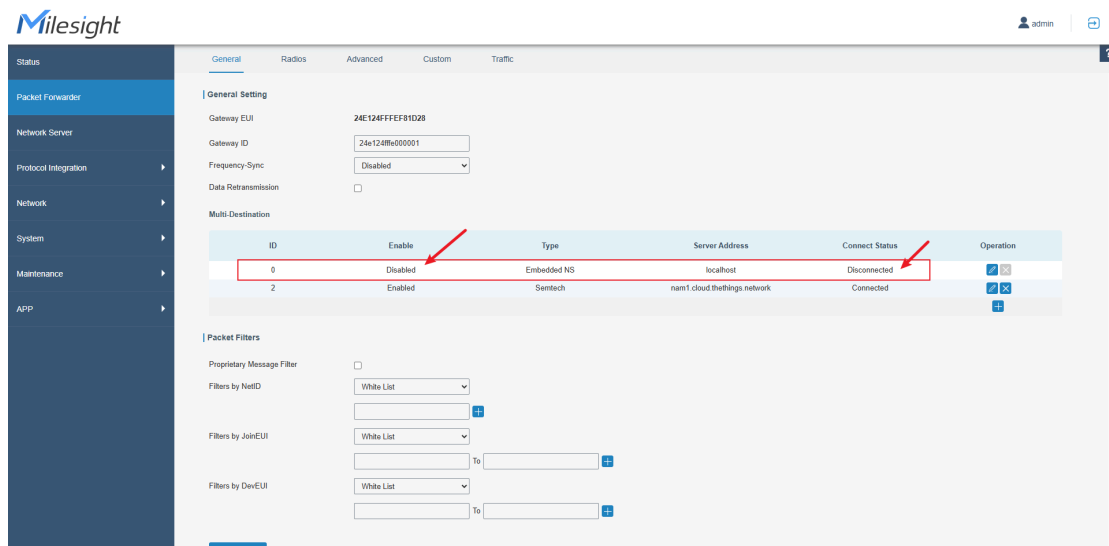
4.1. Disable the Built-in Network Server

First, log into the gateway's web interface (refer to <[How to Login Web GUI of Milesight Gateway](#)>) and follow the steps in the screenshot:





Once the Embedded NS shows as **Disabled** and **Disconnected**, the disabling was successful:

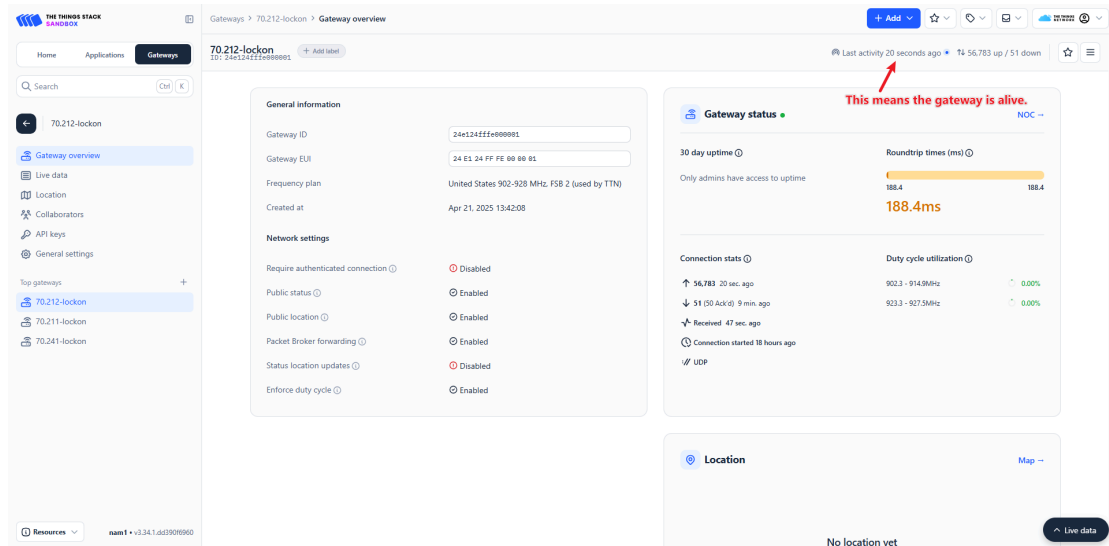
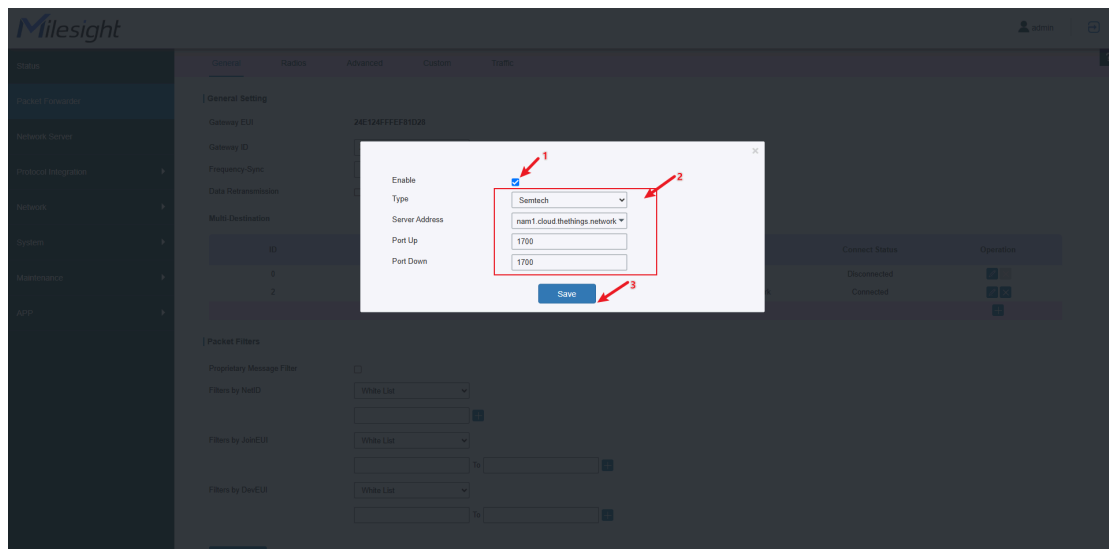


4.2. Connect Gateway to the TTN Platform

Follow the steps in <[The Things Stack-Milesight Gateway Integration via Semtech Packet Forwarder](#)>.

After completion, the screenshot should look like this:





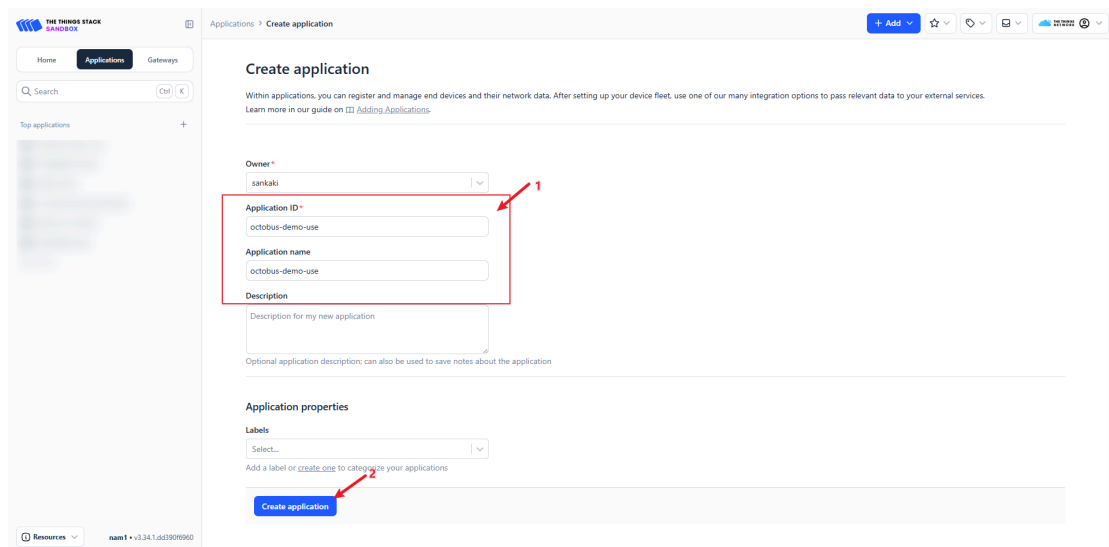
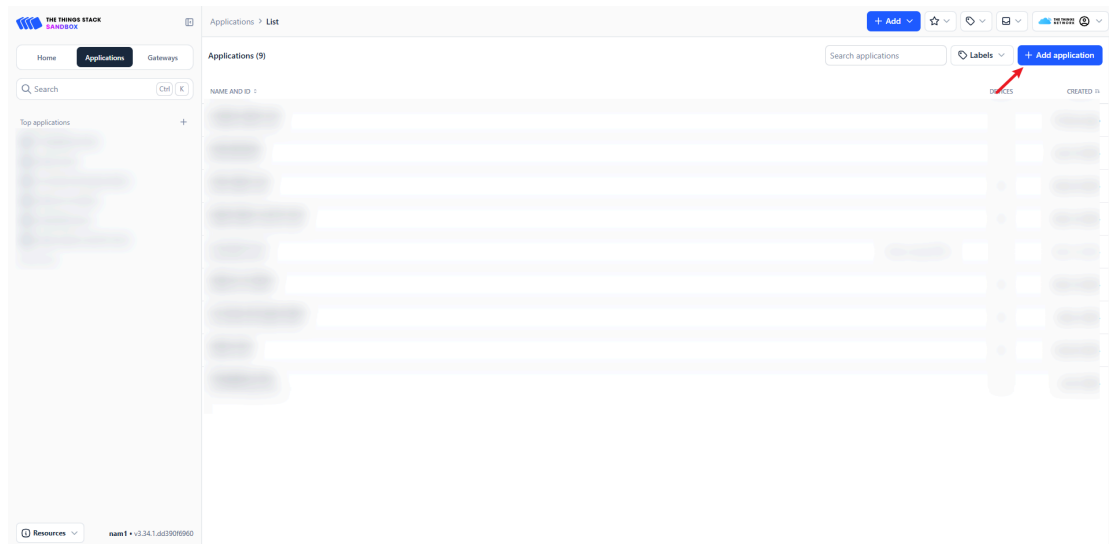
Note:

The TTN region used in this demo is **NAM1**.

5. TTN Platform Configuration

5.1. Create an Application

Follow the steps as shown in the image:



Note:

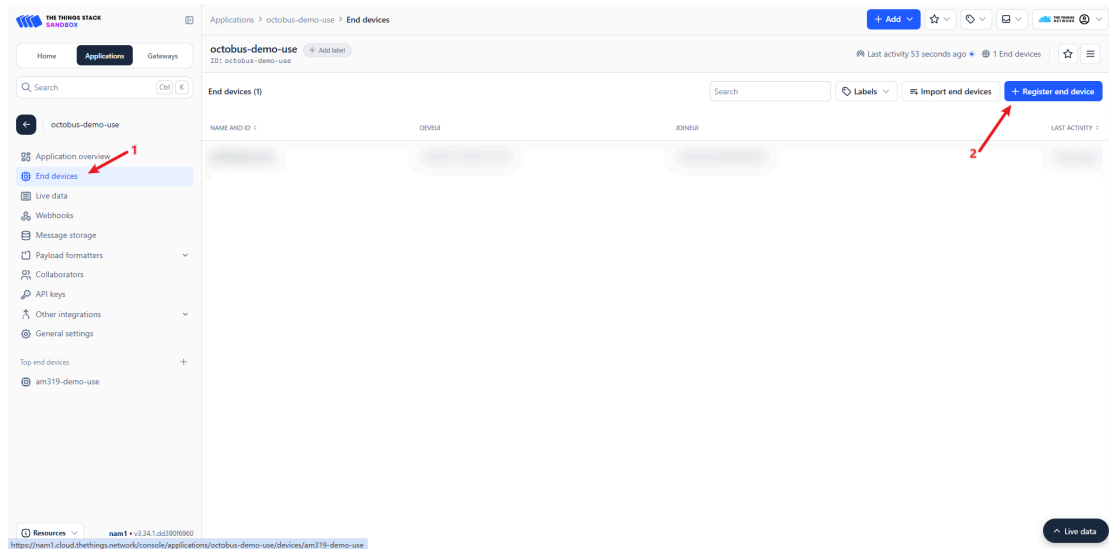
In this demo, the Application ID used is **octobus-demo-use**. Be sure to record this out, as it will be used later.

5.2. Add a Device

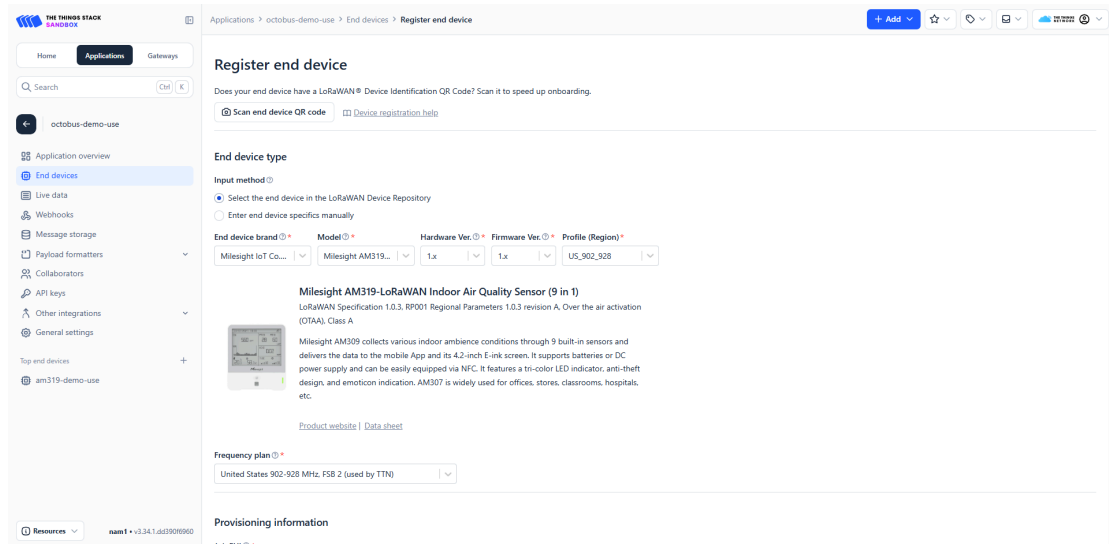
In this demo, we use the AM319 sensor.

Add this device to TTN by following the steps in the screenshots:

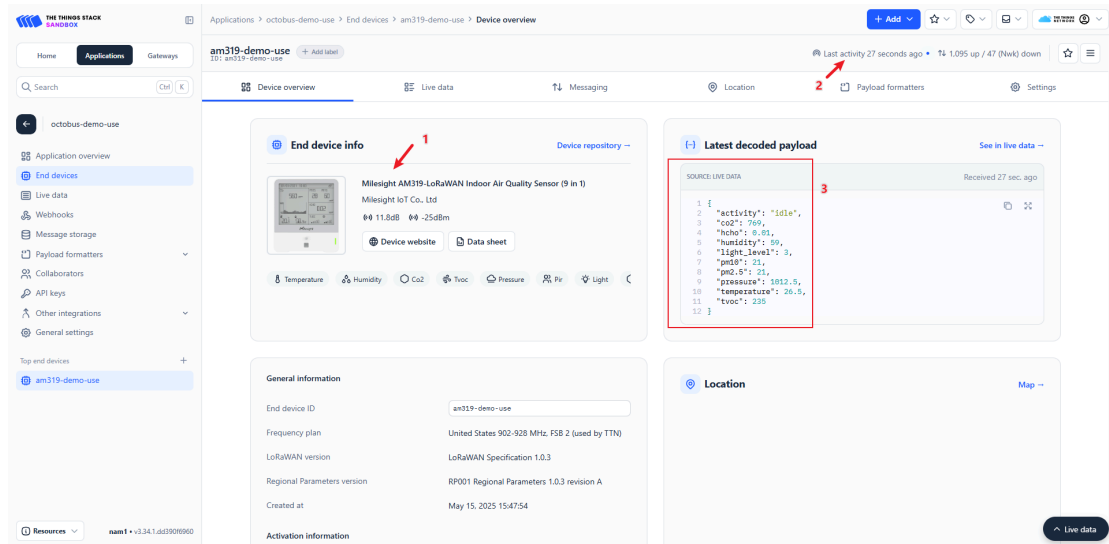




Fill in the AM319 parameters step by step as prompted.
Make sure to select the correct Frequency Plan as shown in the image:



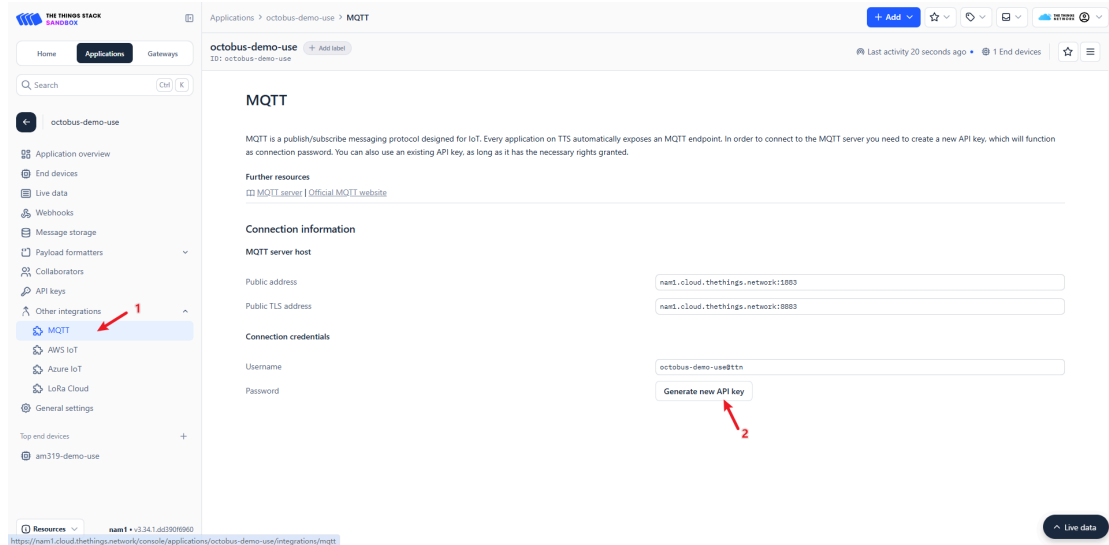
After adding, you will be able to see the basic information of the device and its real-time data on TTN:



This completes the device addition on TTN.

5.3. MQTT Integration Info

Follow the instructions as shown in the screenshots:



Click **"Generate new API key."** The plaintext key will be displayed only once, so make sure to save it securely:

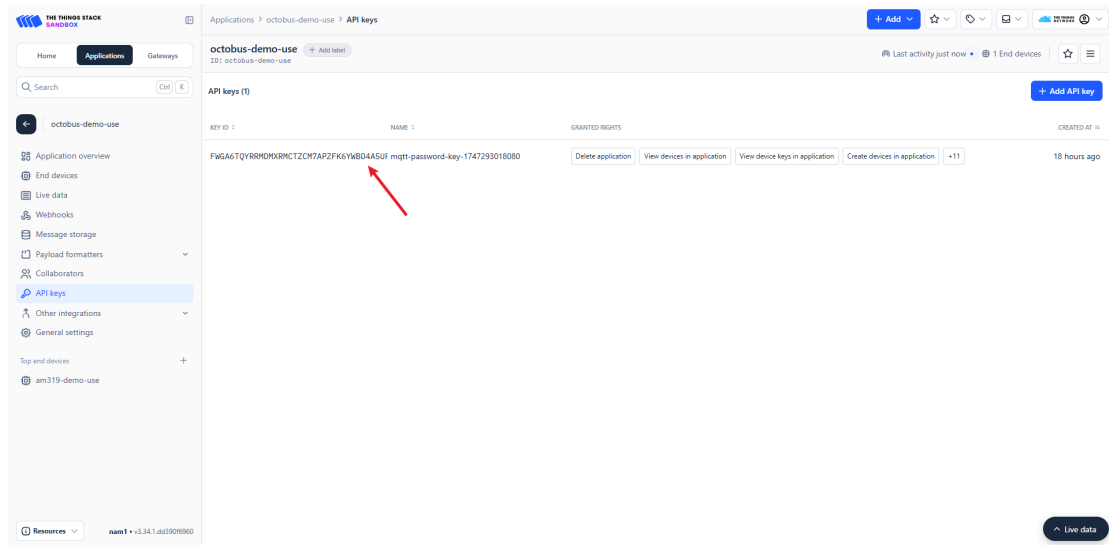
Here is an example plaintext key (for demo only). This is very important and will be used later:

NNSXS.RIEZLBB23I5T2QMBS5IKPNNMBXBVDCQC5YCVBEVA.FRJ2NMKKL2XDLW6065NXCW70XIWHN
3USGMZ3XCFX4T73HDJ7ONNQ

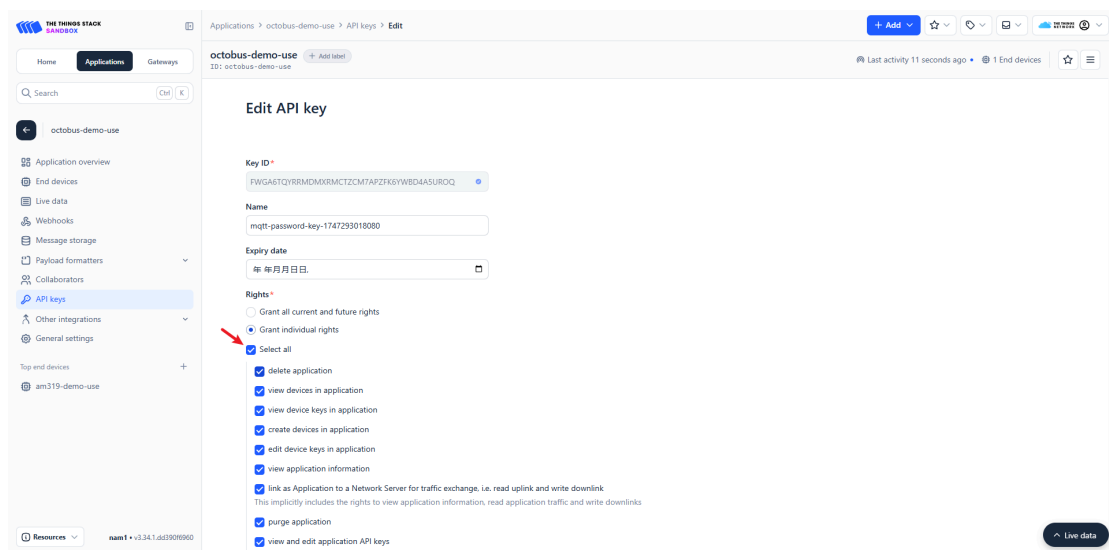
Next, configure the permissions for this key (this step is essential or the integration

won't work).

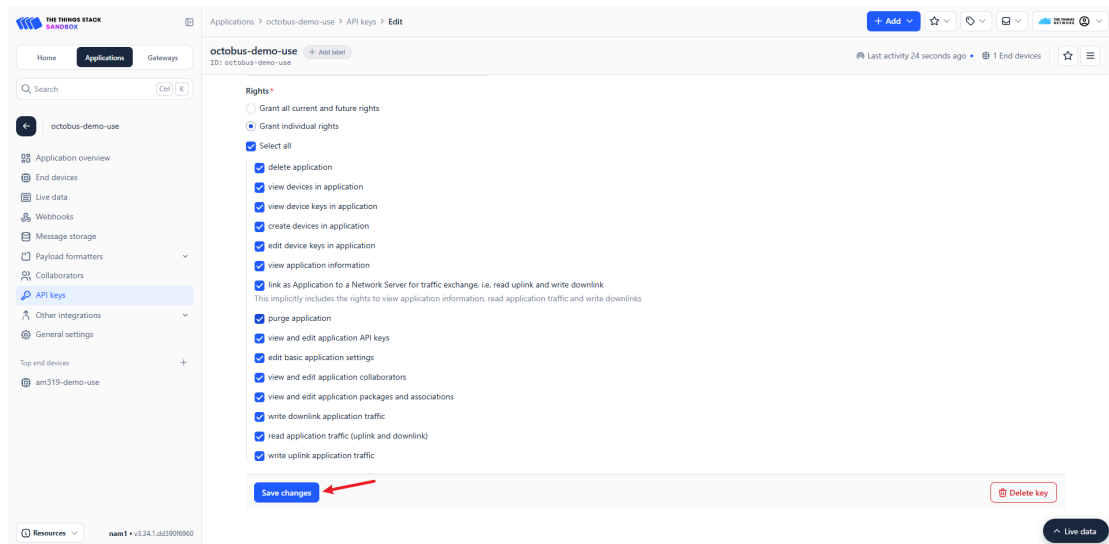
Follow the steps shown, locate the key you just created (usually the most recent one):



Click on it, then check **all permissions** as shown:

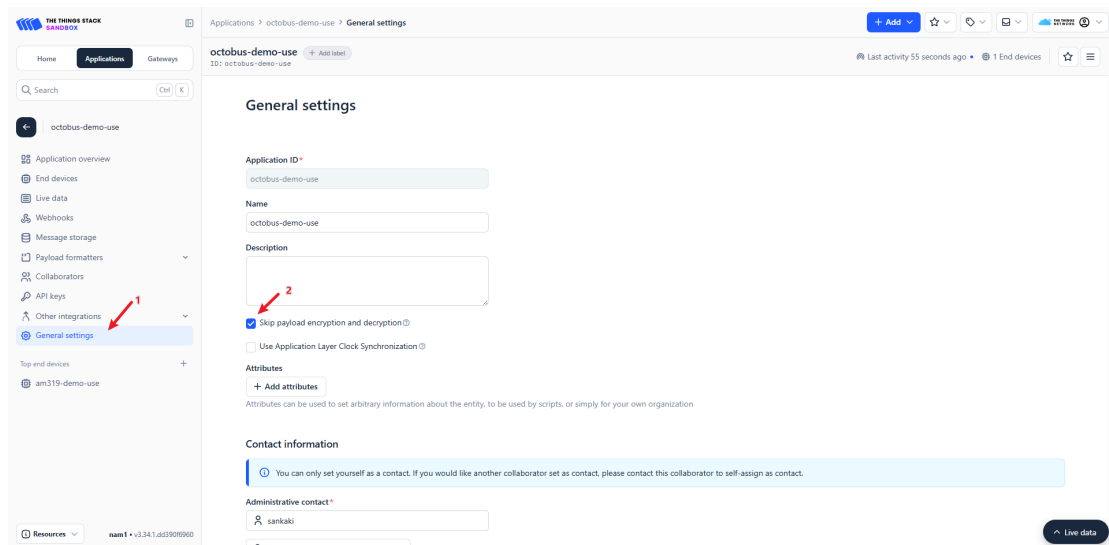


Click **Save changes** after checking all boxes:



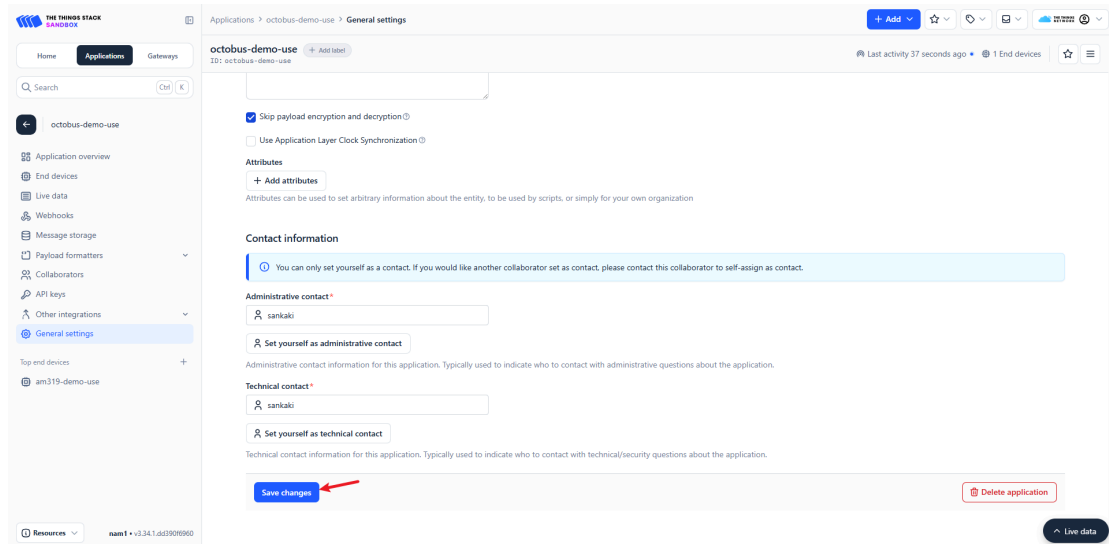
5.4. Modify General Settings

According to the platform documentation, you also need to check **“Skip payload encryption and decryption”** as shown:



Click **Save changes** after checking:

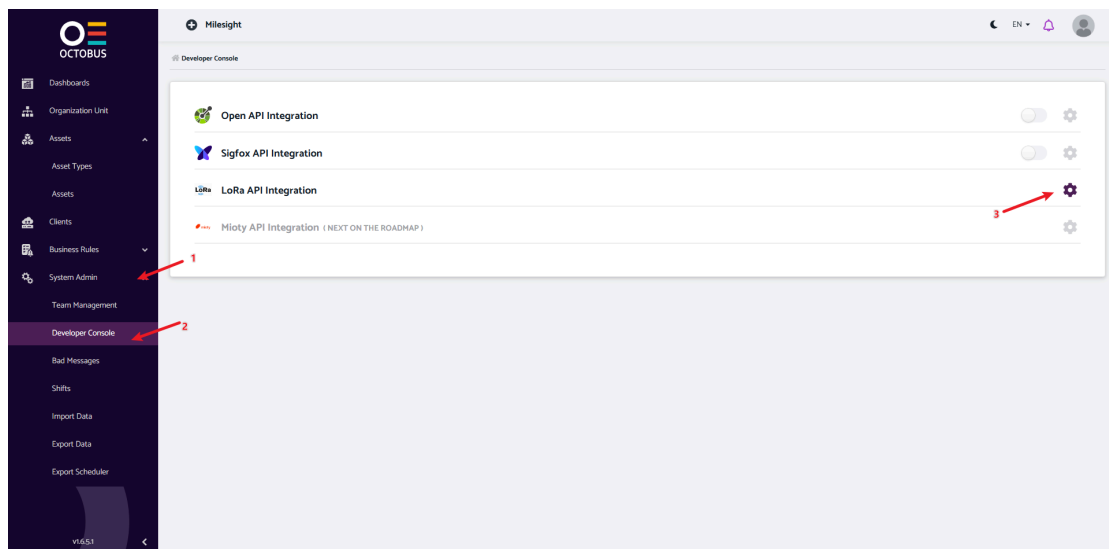


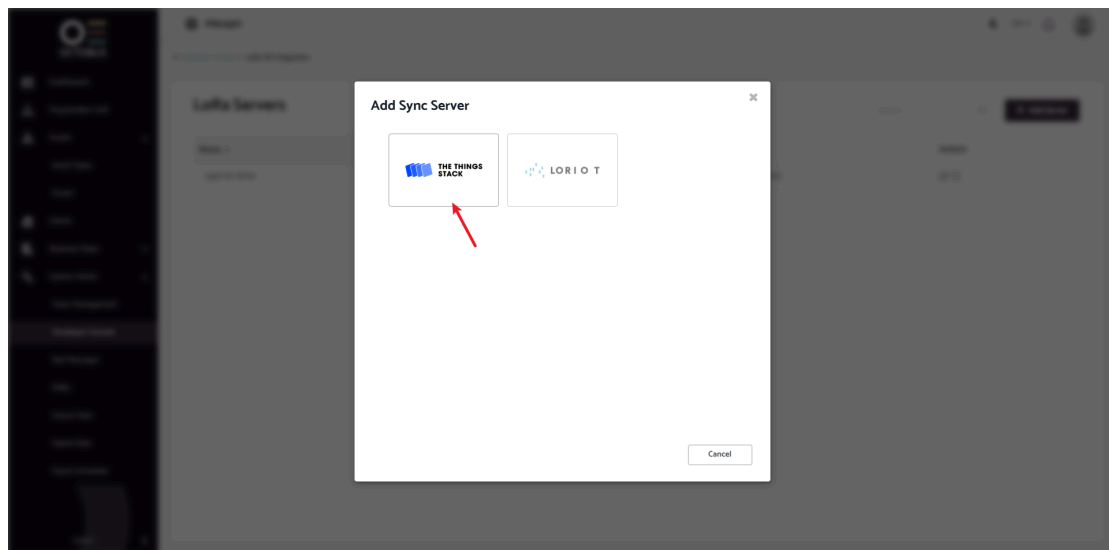
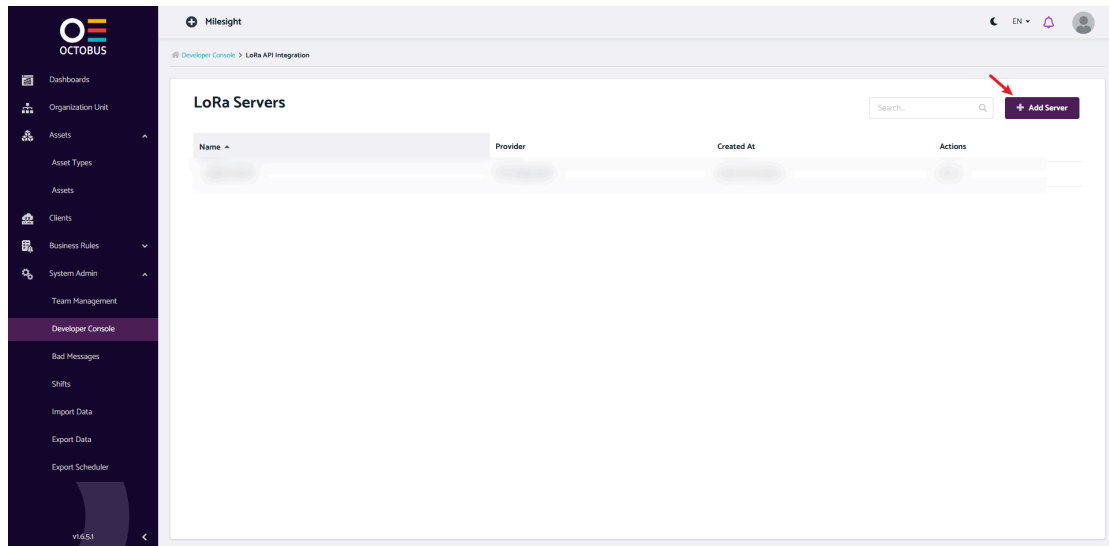


Now the TTN MQTT key and parameters are fully configured. Next, return to the OCTOBUS platform to input the TTN parameters.

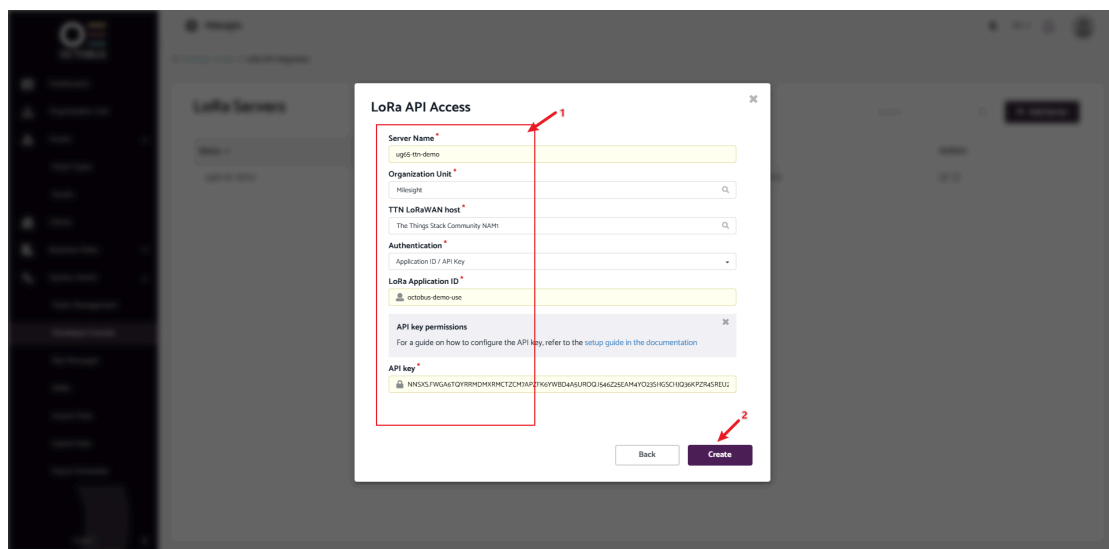
6. Configure LoRa API Integration

Follow the steps shown in the image:





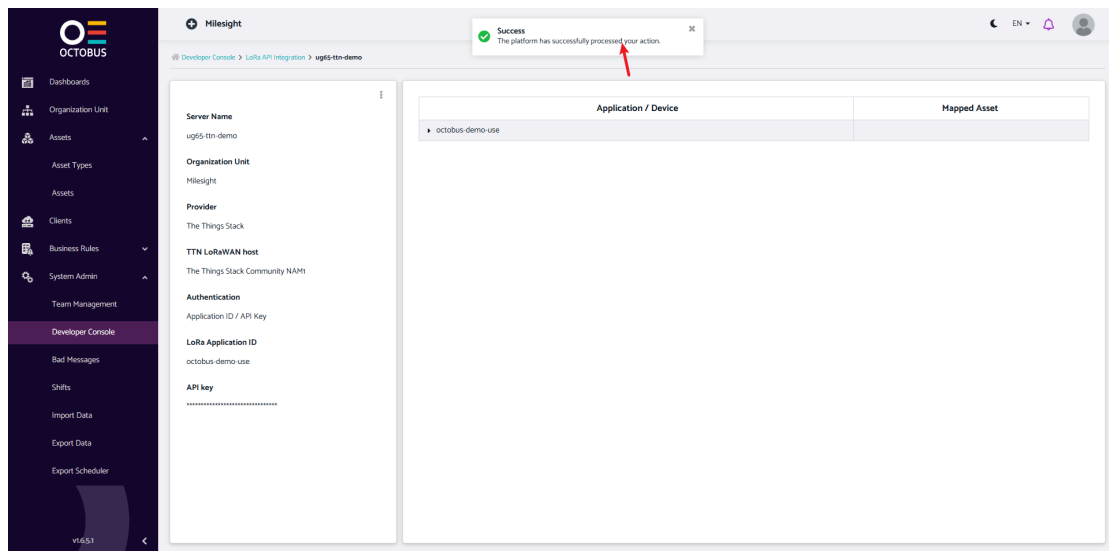
In the popup window, fill in the information obtained in the previous steps:



Parameter description:

- **Server Name:**
Fill in as per your actual scenario
- **Organization Unit:**
Select the name you created in Section 3, e.g., "Milesight"
- **TTN LoRaWAN host:**
Choose the TTN region used in this demo, i.e., **NAM1** (refer to Section 4.2)
- **Authentication:**
Select Application ID / API Key
- **LoRa Application ID:**
Fill in the ID created in Section 5.1, e.g., "**octobus-demo-use**"
- **API Key:**
Paste the plaintext key obtained in Section 5.3

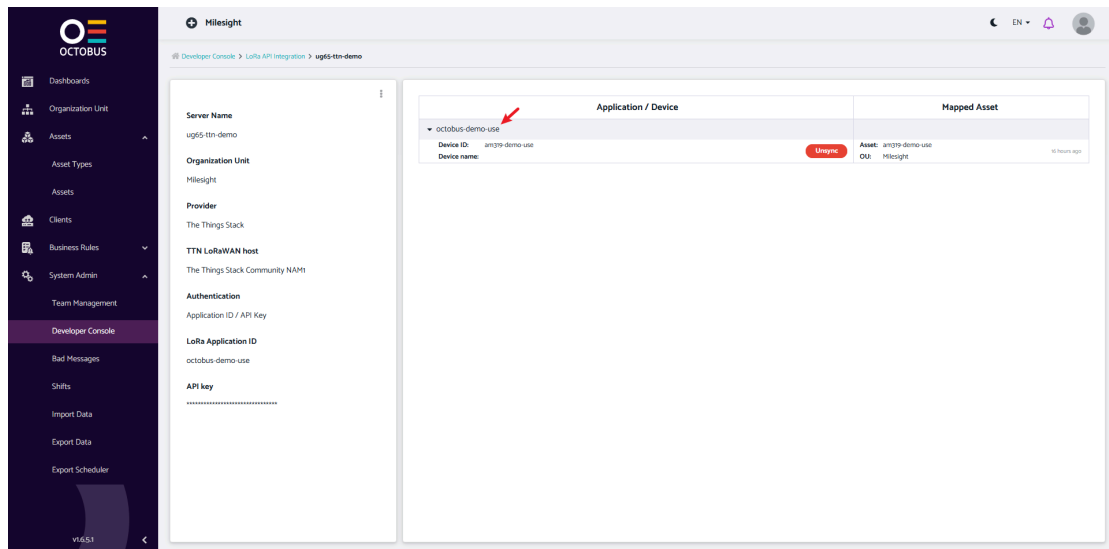
Click **Create**. If the interface shows **Success**, it means the parameters are correct and the integration works:



7. Sync Device Information

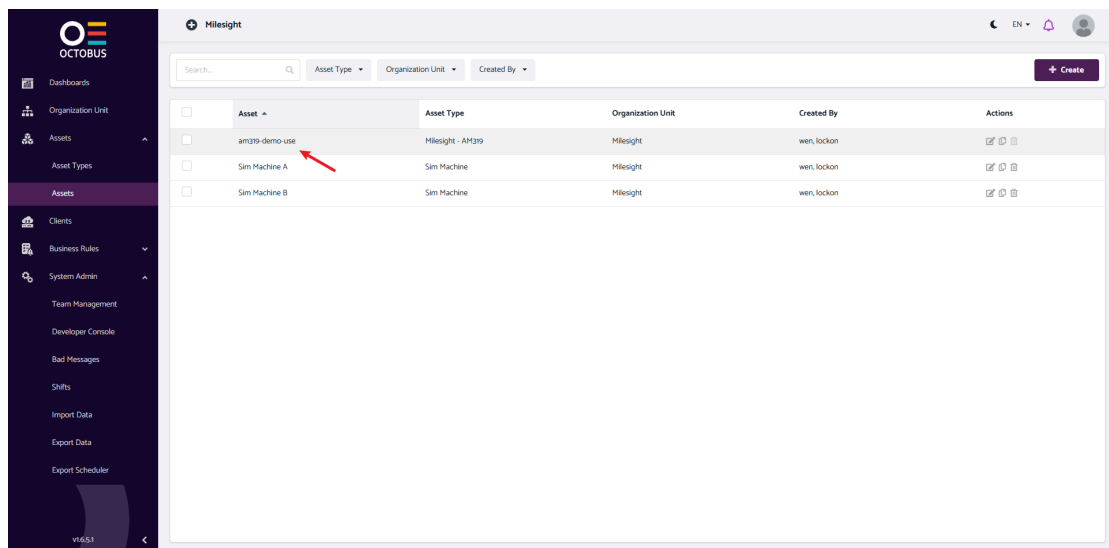
Click as shown to expand the list of all sensors under the Application on TTN:





Click the **Sync** button to synchronize the corresponding devices to the OCTOBUS platform.

Once synchronized, OCTOBUS will automatically create **Assets** and **Asset Types**:



OCTOBUS

Milesight

Assets > am319-demo-use

Asset ID
054b0234-4c04-4c0a-9f18-5f4d07948641

Asset Name
am319-demo-use

Asset Type
Milesight - AM319

Organization Unit
Milesight

Location
-

Description
-

Created By
LoRa

Asset Attributes

PAC	-
LoraDeviceId	am319-demo-use
LoraApplication	octobus-demo-use
ID	-
DevEUI	24E10470D37756

Asset Type Measurement

Asset Measurement	Latest Value	Unit	Last Seen
default.co2	775	ppm	2025-05-16 09:54:07
default.hcho	0.01	-	2025-05-16 09:54:07
default.humidity	57.5	%	2025-05-16 09:54:07
default.light	3	-	2025-05-16 09:54:07
default.o3	-	ppm	-
default.pir	"IDLE"	-	2025-05-16 09:54:07

Integrated with...

Name	Section
IAQ-Demo-CO2	Widget
IAQ-Demo-Line-Chart	Widget
Milesight - AM319	Asset Type
IAQ-Demo-PIR	Widget
IAQ-Demo-humidity	Widget
IAQ-Demo-humidity	Widget

You can now see the real-time sensor data synced to OCTOBUS:

Below is the Asset Type information for the AM319 sensor used in the demo. As shown, the platform automatically created corresponding fields based on the sensor's features:

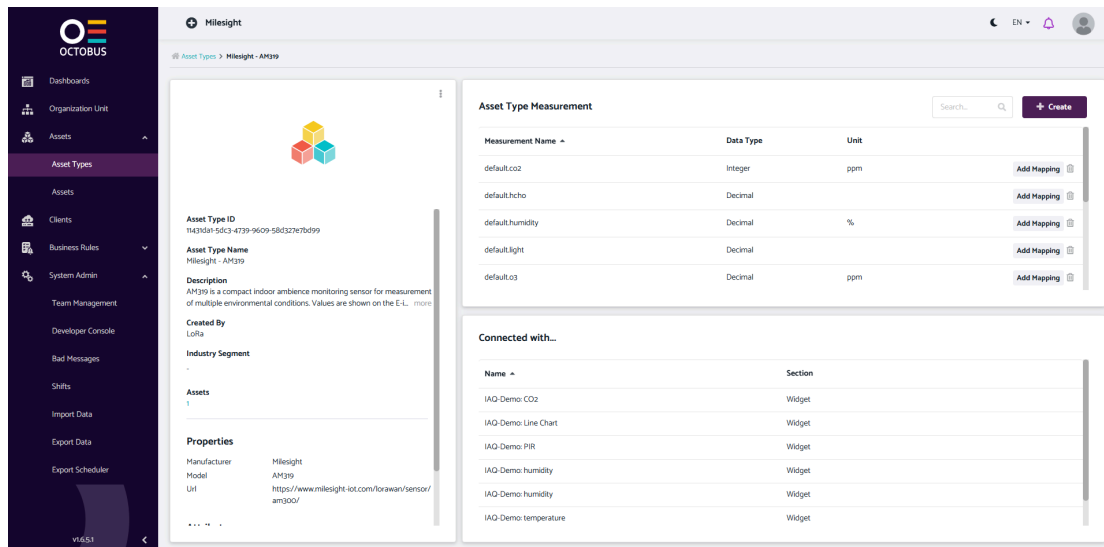
OCTOBUS

Milesight

Search... Created by Created at

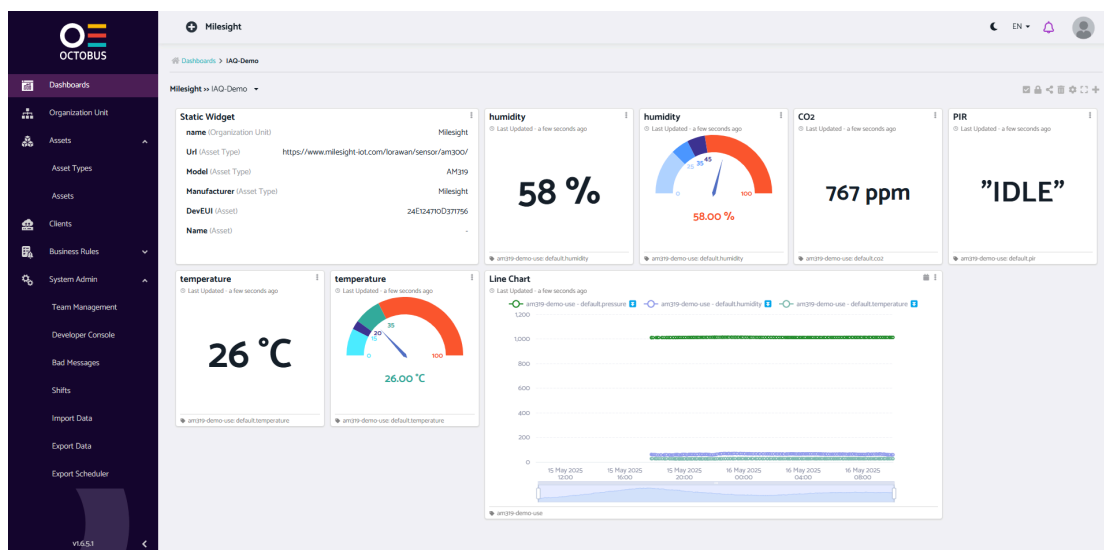
Asset Type

Asset Type	Description	Assets	Created by	Created at	Actions
Milesight - AM319	AM319 is a compact indoor ambience monitoring sensor for measurement of multiple environmental conditions. Values are shown on the E-link screen in real-time. more	1	LoRa	2025-05-15 17:46:14	Edit Delete
Sim Machine	Auto Generated by simulation	2	Manual Setup	2025-03-20 17:43:03	Edit Delete



8. Create a Demo Dashboard

As shown in the image, the sensor data is now reported to the OCTOBUS platform in real time, and can be visualized in charts:



-END-

