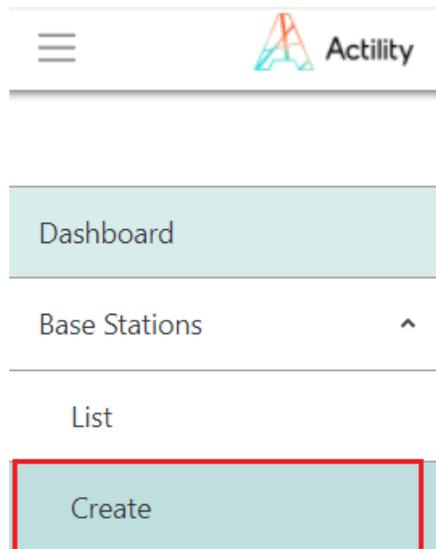


# Configuration in Network Server

## 1. THINGPARK COMMUNITY (ACTILITY) NETWORK SERVER

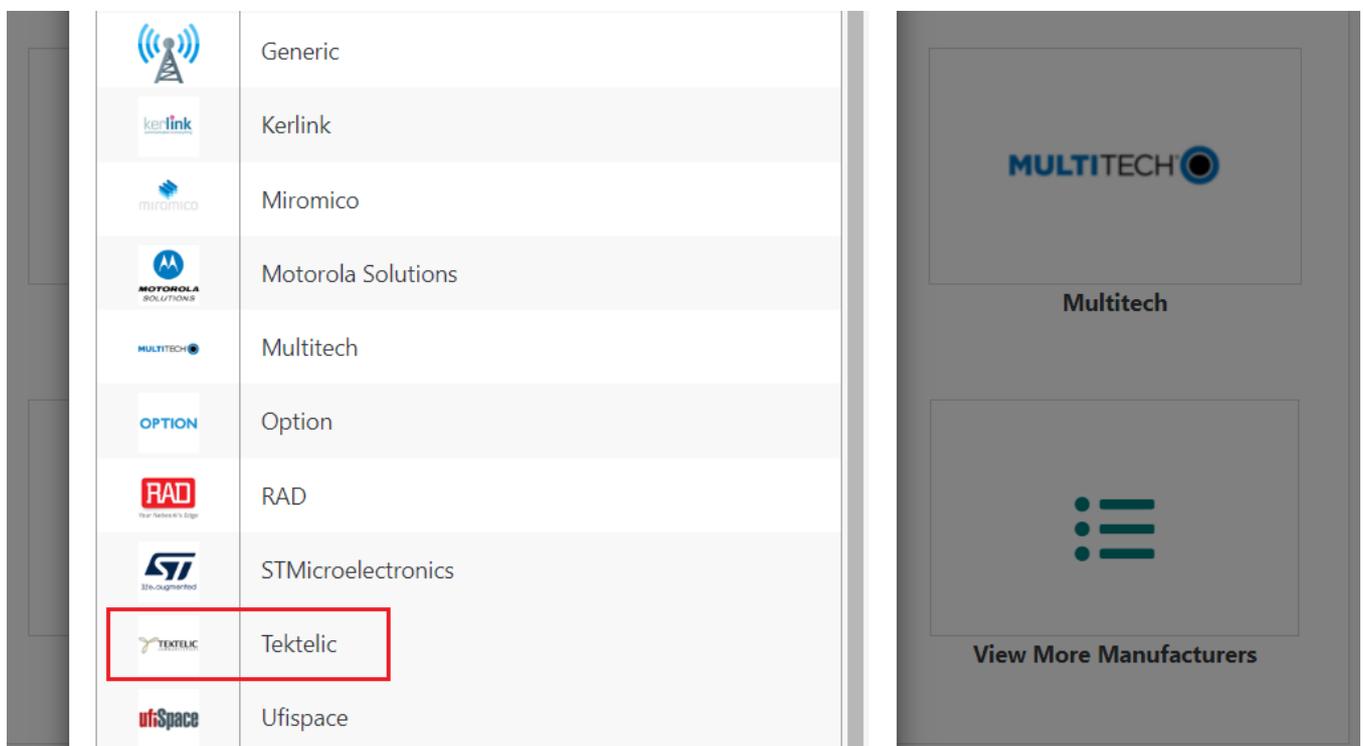
### 1.1. Add Tektelic LoraWAN gateway Model T0005204 to ThingPark Enterprise SaaS Community

1. Log in to your ThingPark Enterprise account via the link: <https://community.thingpark.io/tpe/>
2. Browse on the left panel to **Base Stations**, click the drop-down menu then click **Create**.



3. Select the base station's **Tektelic**.

If you do not find the Tektelic, click View More Manufacturers.



4. On the following screen, select the Model: **Micro 8-channels** from the drop-down list.

## Enter Your Base Station Information\*

Model\* 

Select your model

- Enterprise 8-channels eu868,as923,kr920,us915,au915,in865,ru864
- Kona Macro eu868,as923,kr920,us915,au915,in865,ru864
- Kona Mega eu868,as923,kr920,us915,au915,in865,ru864
- Micro 8-channels eu868,as923,kr920,us915,au915,in865,ru864

5. Fill the form as below table:

Field	Input field
Name	As user-defined
LRR-UUID	Contact the Tektelic Support to get LRR-UUID for Thingpark. Details at link <a href="#">Instruction to get inf...   Online Product Manuals &amp; Datasheets (daviteq.com)</a>
RF region	Site frequency plan (US915, EU868..)
Public Key	Contact the Tektelic Support to get LRR-UUID for Thingpark. Details at link <a href="#">Instruction to get inf...   Online Product Manuals &amp; Datasheets (daviteq.com)</a>

Input exactly as above **Input field** column, except **Name** field is user-defined and is different from existing base station name on the network server.

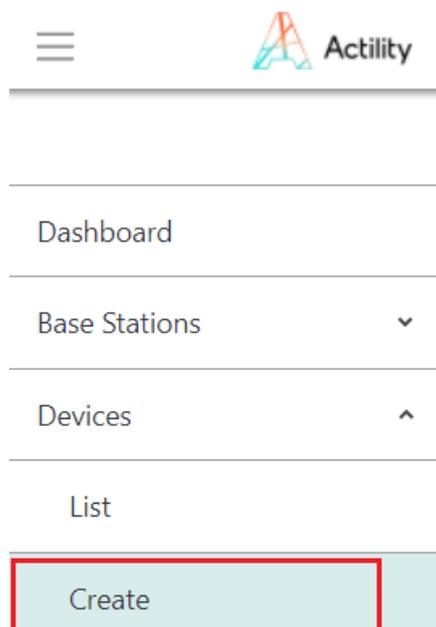
After filling registration form, click **CREATE** to complete adding base station to the network server

## 1.2. Add Daviteq's LoRaWAN devices to ThingPark Enterprise SaaS Community

ThingPark Enterprise supports all Classes of LoRaWAN® devices. By default, the sensor supports Over-the-Air Activation (OTAA) with local Join Server that is programmed at the factory.

 Manual provisioning of OTAA devices using a local Join Server. To learn more, see [Activation modes](#).

1. At left panel of the screen of the Thingpark GUI, click **Devices** > **Create** from the dashboard.



2. Select the **Generic** supported by your device on your screen.



3. Select the Model of **LoRaWAN 1.0.3 revA - class A** with correct frequency plan

### Enter Your Device Information\*

Model\* ⓘ

Type to search models in the list

- LoRaWAN 1.0.3 - class B (AS923-2) as923
- LoRaWAN 1.0.3 - class C (AS923-2) as923
- LoRaWAN 1.0.3 revA - class A au915**
- LoRaWAN 1.0.3 revA - class A as923
- LoRaWAN 1.0.3 revA - class A us915, cn470
- LoRaWAN 1.0.3 revA - class A eu868, eu433, cn779, kr920, in865, ru864
- LoRaWAN 1.0.3 revA - class A (no DL dwell time) as923

4. Fill the form as below table:

Field	Input field
Name	As user-defined
DevEUI	DevEUI is on label of the device or is on the device memory map
Activation mode	Over-the-Air Activation (OTAA) with local Join Server
JoinEUI	Input JoinEUI. This value is read on memory map or is on the label of the device. The default value is 0102030405060708
AppKey	Input AppKey. This value read on memory map or on the label of the device. The default value is 0102030405060708090A0B0C0D0E0F10

In addition to filling the form, option to select the connection between Thingpark and Daviteq application (Globiots)

### Associate Your Device With Your Connections\*

Select the connections you want to associate with your device in order to use its data.

Connections\* ⓘ

Select a connection

<https://vizuo.globiots.com/>

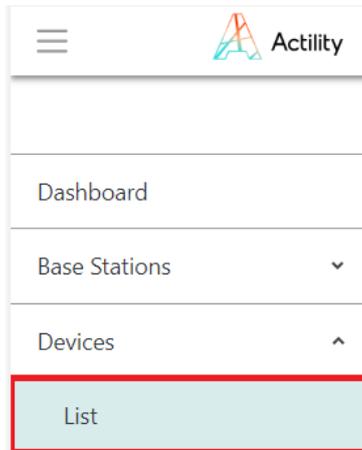
After filling the registration form, please click **CREATE** to add devices to the network server

## 1.3. Send a downlink frame from Thingpark Network Server to the device

Follow below steps to send downlink frame from Thingpark Network Server to the device:

**i** This functionality is active only when a connection is associated to the device (one of the color codes with a green bullet).

1. Navigate to the left panel, click the Devices's drop-down menu then click List.



2. Browse the right side in the DEVICES, and click ... icon of the device and click Send Downlink.

DEVICES										+ ↕ ⌵	List	Map
1-4 of 4 Add filter										Show: 100		
		Name	DevEUI	Last Uplink	Packets (24h)	SF	PER	Alarms	Tags			
<input type="checkbox"/>	LoRa	Sample US915	99-99-99-99-99-99-99	Never	0					...		
<input type="checkbox"/>	LoRa	Sample EU868	35-31-38-31-5F-30-6C-18	14/07/22 - 16:39:07	0	SF7				...		
<input type="checkbox"/>	LoRa	SMT7_979	30-36-36-32-56-39-66-0B	Today - 09:35:12	112	SF7	0 %			...		
<input type="checkbox"/>	LoRa	SMT7_740	35-31-38-31-5D-30-64-18	Today - 09:43:07	113	SF7	0 %			...		

Tag

Duplicate

Delete

Send Downlink

3. Input downlink code to Payload field and input 1 to the Port field, and then click VALIDATE.

**i** The downlink data is added to the device downlink queue in network server. The downlink is sent after the network server receive an uplink from the device.

### Send Downlink

Payload ⓘ

Port ⓘ

**CANCEL** **VALIDATE**

## 2. THINGS STACK (THE THINGS NETWORK) NETWORK SERVER

### 2.1. Add LoraWAN gateway to The things Stack network server.

1. Log in to you're The Things Stack account
2. Click tab **Gateways**, click **Add gateway** button

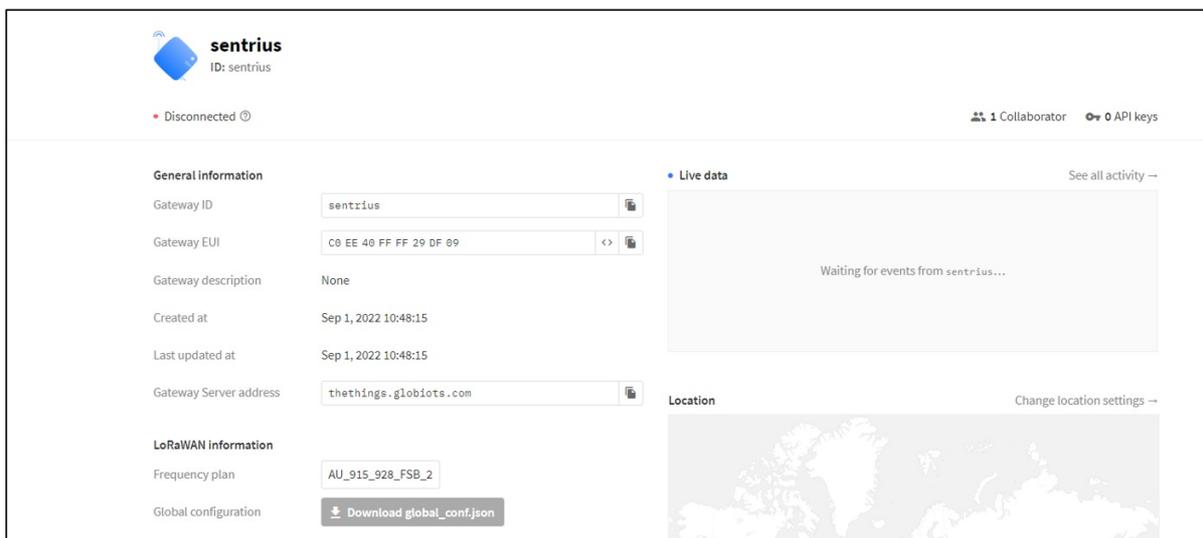


3. Fill the form as below table:

FIELD	INPUT
GatewayEUI	EUI of gateway. This information can be found on the gateway's label
Gateway name	As user-defined
Gateway ID	As user-defined
Frequency plan	Input right frequency plan (Ex: Australia 915-928 MHz, FSB 2 (used by TTN))

Input exactly as above Input column, except Gateway Name field and Gateway ID field is user-defined and is different from existing gateway name and gateway ID on the network server.

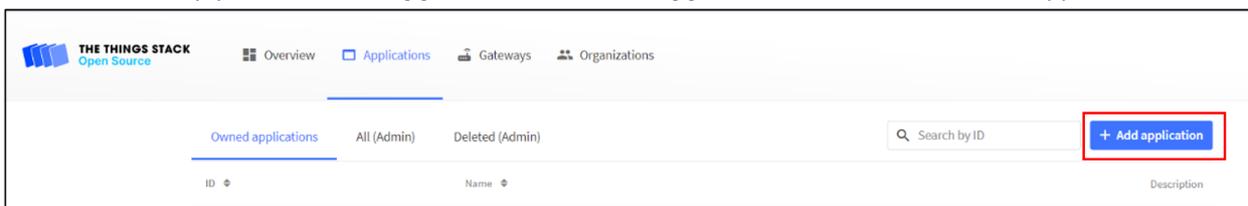
After filling registration form, click **CREATE GATEWAY** to complete adding base station to the network server.



## 2.2. Add Daviteq's LoRaWAN device to The Things Stack network server

The Things Stack supports all Classes of LoRaWAN® devices. By default, the sensor supports Over-the-Air Activation (OTAA) with local Join Server that is programmed at the factory.

1. Browse on the top panel, click tab **Application**, click **Add application** button to create an application



2. Fill in the information fields as user-defined then select **Create application**

**THE THINGS STACK**  
Open Source

Overview Applications Gateways Organizations

## Add application

Owner\*  
admin

Application ID\*  
training

Application name  
training

Description  
training

Optional application description; can also be used to save notes about the application

**Create application**

3. After the application is created successfully, select **Add end device** to register end device (LoraWAN sensor)

**THE THINGS STACK**  
Open Source

Overview Applications Gateways Organizations admin

training

Applications > training

**training**  
ID: training

No recent activity

0 End devices 1 Collaborator 0 API keys

General information

Application ID: training

Created at: Aug 29, 2022 13:44:31

Last updated at: Aug 29, 2022 13:44:31

Live data

Waiting for events from training...

End devices (0)

Search by ID Import end devices **+ Add end device**

4. Fill the form as below table:

FEILD	INPUT
Frequency name	Input correct frequency plan (Ex: Australia 915-928 MHz, FSB 2 (used by TTN))
DevEUI	As DevEUI on label of the device or read from device memory map
Activation mode	Over-the-Air Activation (OTAA) with local Join Server
AppEUI	Input AppEUI. This value read on device memory map or on the label of the device. The default value is 0102030405060708
AppKey	Input AppKey. This value read on device memory map or on the label of the device. The default value is 0102030405060708090A0B0C0D0E0F10
Lorawan version	Must be choose version 1.0.3

After filling the registration form, please click **Register end device** button to add the device to the network server

training

Register end device

From The LoRaWAN Device Repository [Manually](#)

Frequency plan <sup>Ⓞ</sup>\*

Australia 915-928 MHz, FSB 2 (used by TTN)

LoRaWAN version <sup>Ⓞ</sup>\*

MAC V1.0.3

Regional Parameters version <sup>Ⓞ</sup>\*

PHY V1.0.3 REV A

[Show advanced activation, LoRaWAN class and cluster settings](#) ^

Activation mode <sup>Ⓞ</sup>\*

Over the air activation (OTAA)

Activation by personalization (ABP)

Define multicast group (ABP & Multicast)

Additional LoRaWAN class capabilities <sup>Ⓞ</sup>

None (class A only)

training

Additional LoRaWAN class capabilities <sup>Ⓞ</sup>

None (class A only)

Network defaults <sup>Ⓞ</sup>

Use network's default MAC settings

Cluster settings <sup>Ⓞ</sup>

Use external LoRaWAN backend servers

DevEUI <sup>Ⓞ</sup>\*

35 31 38 31 62 30 7D 18

AppEUI <sup>Ⓞ</sup>\*

01 02 03 04 05 06 07 08 [Fill with zeros](#)

AppKey <sup>Ⓞ</sup>\*

01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F 10 [Generate](#)

End device ID <sup>Ⓞ</sup>\*

eui-3531383162307d18

This value is automatically prefilled using the DevEUI

After registration

View registered end device

Register another end device of this type

[Register end device](#)

< Hide sidebar

## 2.3. Send a downlink frame from The Things Stack Network Server to the device

1. Select the device to send down link
2. Input 1 to the **FPort** and input the downlink data in the payload field, untick **Confirmed downlink** and click **Schedule downlink**

Uplink   **Downlink**

---

### Schedule downlink

**Insert Mode**

Replace downlink queue  
 Push to downlink queue (append)

**FPort \***

**Payload type**

Bytes    JSON

**Payload**

The desired payload bytes of the downlink message

Confirmed downlink

Note:  
-DON'T check the **Confirmed downlink** for downlink the message

- 
- 🔄 Revision #20
  - ★ Created Mon, Aug 22, 2022 9:49 PM by [Phan Van Luc](#)
  - ✎ Updated Sun, Jul 9, 2023 9:03 PM by [Phan Van Luc](#)