Connect M2 Multi-Platform Gateway to ChirpStack

This tutorial will guide users to set up a LoRaWAN® network by connecting the LoRaWAN® sensors and M2 Multi-Platform Gateway to the ChirpStack
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1. ChirpStack Configuration

ChirpStack provides open-source components for LoRaWAN networks. Together they form a ready-to-use solution including a user-friendly web-interface for device management and APIs for integration.

1.1 Add Gateway

● Step 1: Login into the ChirpStack Application Server.

The default credentials are: Username: admin; Password: admin

Note: If you have not yet connected your ChirpStack Application Server instance with a ChirpStack Network Server instance, you need do this first. See Network servers. Also you need connect the organization with the network-server by creating a Service profile.

● Step 2: Add gateway

Navigate to Gateways > Add gateway
Gateway name: A name of your gateway

Gateway EUI: Gateway EUI can be found on the device label or Local Console

1.2 Add Device

- **Step 1**: Add device profile

Before you can add your device to ChirpStack, you have to create a [Device-profile] if you haven't done this already.

Navigate to Device profile> Add device profile
**Name:** A name of your device profile

**Region:** Select the Region plan according to your gateway.

**MAC version:** LoRaWAN 1.0.3

**Regional parameters revision:** A

**ADR algorithm:** Default ADR algorithm (LoRa only)

**Note:** Select MAC version/Regional parameters revision/ADR algorithm according to your device. For details, please refer to: [https://lorawan.org/resource_hub/](https://lorawan.org/resource_hub/)

- **Step 2:** Add device

Navigate to **Application > Add Application**
Click the application to which you want to add your device. Under the **Devices** tab, click **Add device**

**Name**: A name of your device

**Device EUI**: Device EUI can be found on the device label or SenseCAP Mate APP

**Device profile**: Choose the device profile we create in 1.2 step1.
2. Gateway Configuration

Configure the gateway via the Web UI, please check the Quick Start to log into Local Console first.

- **Step 1: LoRa Network Settings**

Navigate to **LoRa > LoRa Network**
**Mode:** Packet Forward

Packet Forwarder Settings:

**Gateway EUI:** It will automatically get the EUI of the connected gateway

**Server Address:** Your ChirpStack Server address

**Server Port (Up/Down):** 1700

Other settings can be left as default or can be changed to suit your requirements.

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- **Step 2:** Channel Plan Settings

Navigate to LoRa > Channel Plan
Select the Region and Frequency plan according to the actual choice.

After setting, click **Save&Apply**
3. Data View

- **Gateway data**

  Navigate to **Gateways**, choose the gateway you want to check

![Gateway data](image)

- **Device data**

  After adding your LoRaWAN device to ChirpStack, validate that your device is able to activate (in case of OTAA) and send data.

  Navigate to **Applications > Devices**, choose the device you want to check

![Device data](image)