2.4GHz LoRaWAN Gateway

Contents

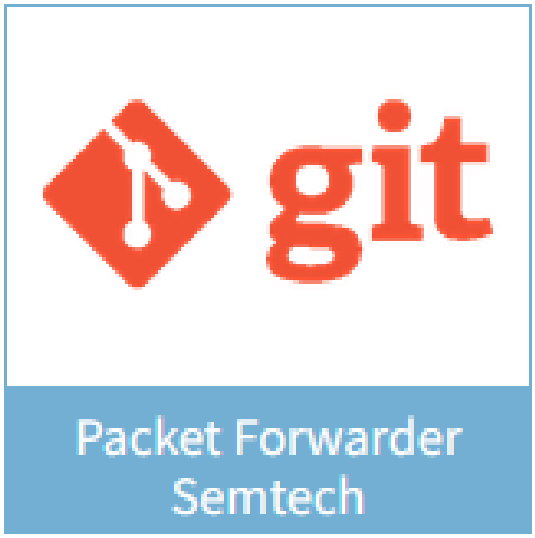
This guide describes how to register a 2.4GHz LoRaWAN Gateway in a LORIOT V7 OSPREY Network Server. Basic, user level knowledge of LORIOT LNS is required, only the 2.4GHz specific information shared in this guide.

Please note, LoRaWAN at 2.4GHz is not supported by the LoRa Alliance. Implementation is based on SEMTECH Layer2 specification and reference design. For technical information, see References section at the end of this guide.

If you need help, first check the Online Documentation of the LNS at docs.loriot.io If you still need help, contact LORIOT Technical Support at support.loriot.io

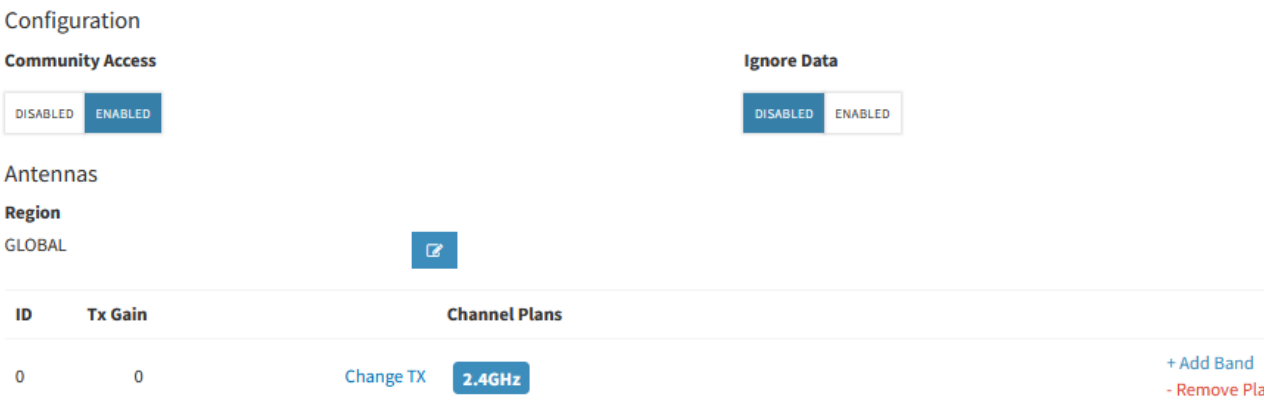
Gateway Registration

Check in the Gateway Catalogue whether a LORIOT Packet Forwarder (binary) is available for your model. If it is supported, follow the installation instructions on the screen. If a LORIOT binary is not yet available, choose the generic SEMTECH UDP Packet Forwarder:



For instructions how to configure the Packet Forwarder see here: Packet Forwarder Semtech

When the Gateway is registered, change Region to GLOBAL and add 2.4GHz band. If there is another plan assigned already, remove it:



Now the Gateway is ready for use.

3 Channel Plan

2.4GHz

Frequency	Bandwidth	Modulation	Ind
2403 MHz *	812 kHz	SF12	0
2425 MHz *	812 kHz	SF12	1
2479 MHz *	812 kHz	SF12	2
RX2 channel (downlink)			
2423 MHz	812 kHz	SF12	

* Mandatory Channel

Current implementation does not support ADR.

References

https://docs.loriot.io/display/LNS/Packet+Forwarder+Semtech

https://support.loriot.io/support/home

https://www.semtech.com/products/wireless-rf/lora-24ghz

https://lora-developers.semtech.com/uploads/documents/files/Physical_Layer_Proposal_2.4GHz_v4c_downloadable_.pdf