

Overview



LoRaWAN specification is a Low Power, Wide Area (LPWA) networking protocol designed to wirelessly connect battery operated 'things' to the internet in regional, national, or global networks, and targets key Internet of Things (IoT) requirements such as bi-directional communication, end-to-end security, mobility and localization services.

LoRaWAN network architecture is deployed in a star-of-stars topology in which gateways relay messages between end-devices and a central network server. The gateways are connected to the network server via standard IP connections and act as a transparent bridge, simply converting RF packets to IP packets and vice versa. The wireless communication takes advantage of the Long Range characteristics of the LoRa physical layer, allowing a single-hop link between the end-device and one or many gateways. All modes are capable of bi-directional communication, and there is support for multicast addressing groups to make efficient use of spectrum during tasks such as Firmware Over-The-Air (FOTA) upgrades or other mass distribution messages.

EasyEdge LoRaWAN Engine works as a Network Server for the Edge allowing direct interaction with LoRaWAN Devices without requiring any cloud LoRaWAN services or even a permanent connection to the cloud for any other purpose. With ABP and OTAA activation methods, EasyEdge LoRaWAN Engine supports the full frequency spectrum for global coverage.

Features

- Supports LoRaWAN as a Network Server for the Edge that doesn't require a permanent connection to the cloud;
- Supports uplink messages;
- Supports downlink messages;
- Supports ABP (Activation by Personalization) and OTAA (Over-the-air Activation) activation methods;
- Supports receive window (1st and 2nd);
- Supports confirmed/unconfirmed messages;
- Supports modify and verify setting on downlink messages;
- Supports all frequencies and regions;
- Supported data types:
 - Boolean;
 - Integer8;
 - Integer16;
 - Integer32;
 - Integer64;
 - Unsigned8;
 - Unsigned16;
 - Unsigned32;
 - Unsigned64;
 - Floating Point32;
 - Floating Point64;
 - String.