

Product Specification

Product Name: Indoor LoRaWAN Gateway

Model Name: DSGW-090B-cloud

Revision History

| Specification | | Sect. | Update Description | By |
|---------------|------------|-------|---------------------|----|
| Rev | Date | | | |
| 1.0 | 2020-01-30 | | New version release | |
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Approvals

| Organization | Name | Title | Date |
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1. Introduction

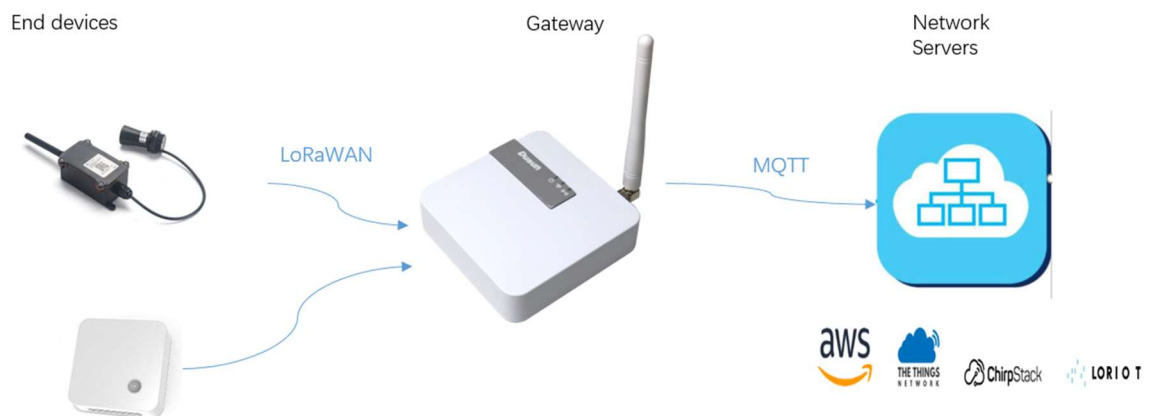
1.1 Purpose& Description

The gateway is based on DSGW-090B. It support bridge mode, with the option for RLS authentication. It can use the MQTT integrated to third-party platform, The thins stack, chripstack, LORIOT, aws iot. DSGW-090B-cloud is especially suitable for small and medium-sized deployment scenarios in industry applications, saving the additional cost for server and R&D investment, and has the advantages of high execution efficiency.

1.2 Product Feature Summary

- Full LoRaWAN Stack support (V 1.0.3) with Semtech SX1302
- Supports 2.4 GHz Wi-Fi AP for configuration
- Multi back-haul with Ethernet, Wi-Fi, Cellular
- Supports Web UI for easy configuration and monitoring base on openwrt.
- Can integrate with both private (ChirpStack) and public (TTN) network servers
- Connect to the AWS IoT core for LoRaWAN
- Built-in Network Server for easy deployment of applications and integration of gateway
- Buffering of LoRa frames in Packet Forwarder mode in case of NS outage (no data loss)

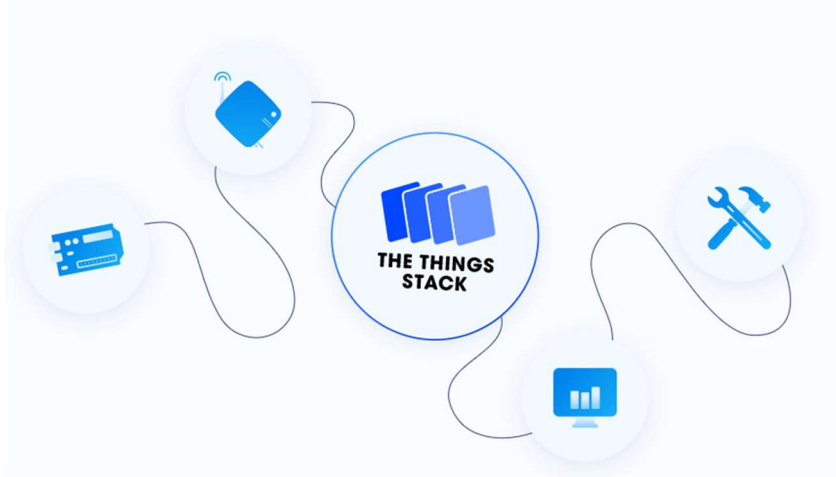
2. Solution



3. Thrid-Part Platform

3.1 The Things Stack

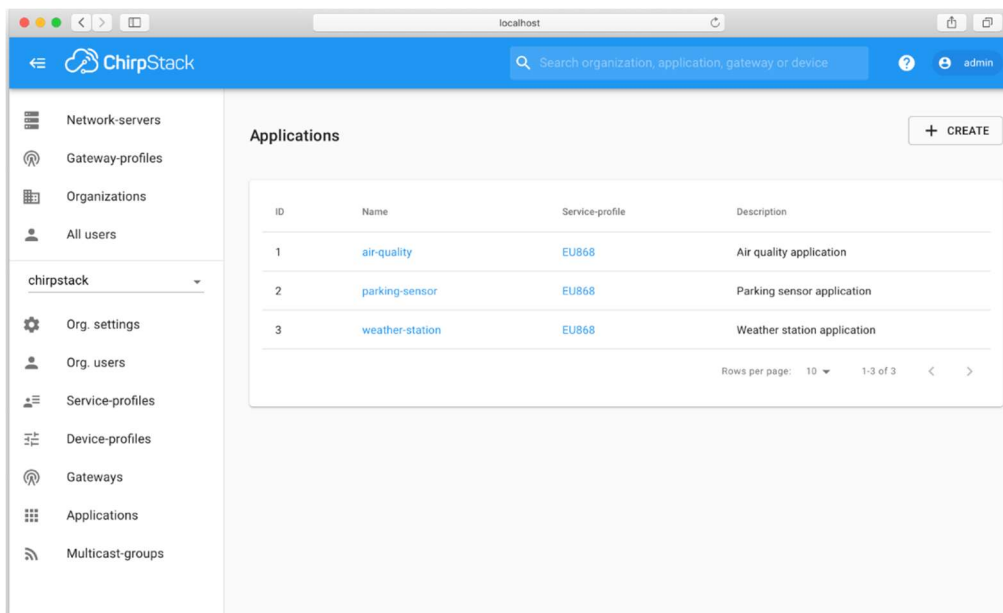
The Things Stack is an enterprise grade LoRaWAN network server, built on an open source core. The Things Stack allows you to build and manage LoRaWAN networks on your own hardware or in the cloud.



The link for the things stack: <https://www.thethingsindustries.com/docs/>

3.2 Chripstack

The ChirpStack open-source LoRaWAN Network Server stack provides open-source components for LoRaWAN networks. Together they form a ready-to-use solution including an user-friendly web-interface for device management and APIs for integration. The modular architecture makes it possible to integrate within existing infrastructures. All components are licensed under the MIT license and can be used for commercial purposes.



The link for Chripstack: <https://www.chirpstack.io/>

3.3 AWS IoT Core for LoRaWAN

AWS IoT Core Integration is a software service that enables your LoRaWAN gateway to work with AWS IoT Core. This document will show you how to set up a LoRaWAN end-node and view its data on the AWS IoT Console. In addition, it'll show you how to send a message from AWS IoT Console to the end-node as well.

