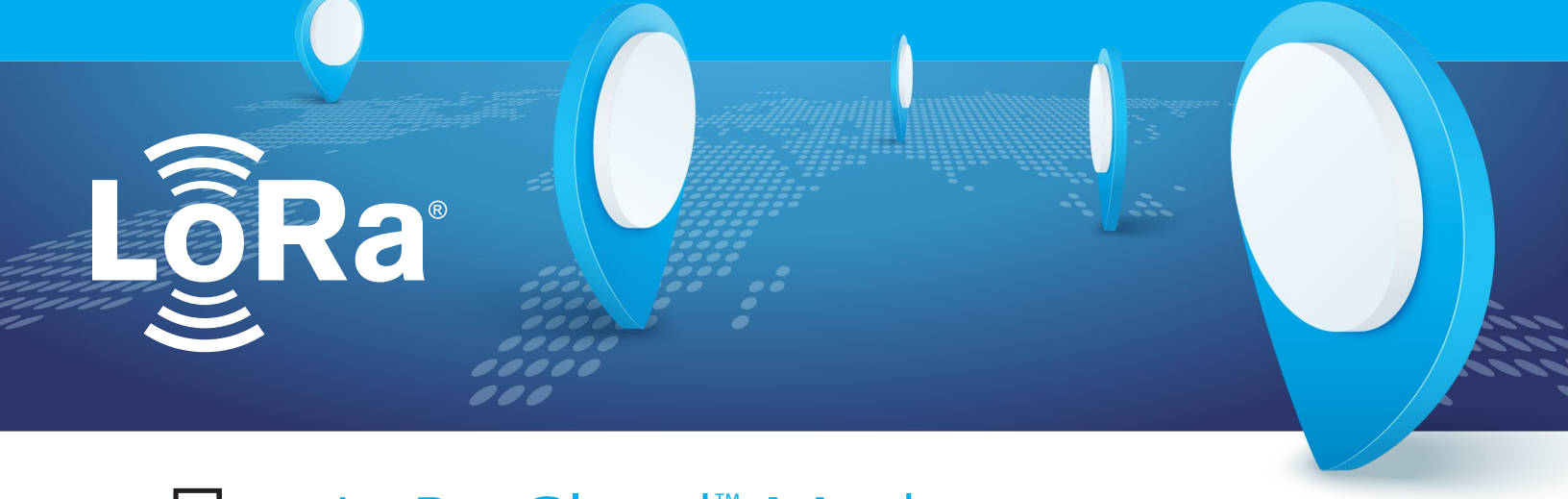

LoRa Cloud™ Modem & Geolocation Services

LoRa Cloud Modem & Geolocation Services offer cloud solutions to enable customers to add location as well as fine grain control to optimize usage of your LoRaWAN® end devices. Enjoy a simplified process to control your end devices and develop an ultra-low power geolocation solution that opens the door to a new set of indoor and outdoor asset tracking use cases.

Features include comprehensive device telemetry, modem configuration, clock synchronization, and advanced data transport services with configurable robustness against packet loss and transparent data fragmentation.

Enable Fine Grain Control of Your LoRaWAN® Devices

Modem Services

Modem Services are designed to complement full IoT device management solutions and give you fine grain control of your LoRaWAN end devices. They offer you a simple, transparent way to manage transceivers that leverage LoRaWAN by providing critical modem status and control. Services include the ability to obtain modem status information such as:

- System status
- Firmware version
- Voltage
- Downlink signal quality
- Time since last downlink

You can send control commands to the modem such as:

- Rejoin
- Reset
- Set ADR
- Mute

Benefits

- Full insight into modem status and fine grain control of any LoRaWAN transceiver
- Error correction provided by Advanced Transport Services ensures reliable delivery of data
- Includes clock synchronization
- Best option for an integrated LoRa Edge™ Asset Tracking Solution based on LoRa Basics™ Modem – Almanac management and aiding data management is taken care of
- Compatible with any LoRa-enabled Network Servers including Actility, Things Industries, Orbiwise, LoRIoT, Chirpstack

LoRa Cloud™ Modem & Geolocation Services

Some applications require higher data delivery guarantees in challenging environments. Modem Services provide two protocols to reliably receive application data from the reporting devices without ever loosing data: large file upload and streaming. These protocols go by the name Advanced Transport Services (ATS) and ensure applications can send their data as over a socket. ATS allows to significantly increase the reliability of LoRaWAN uplink message delivery at the presence of packet loss. This is achieved efficiently by leveraging forward error correction encoding as opposed to relying on downlink acknowledgements.

The Large File Upload (LFU) protocol ensures the upload of a file from the device to the Modem Service, creating an identical copy of the file in the Cloud.

The purpose of the data streaming protocol is to create a reliable pipe for variable-sized application data records from the device to the Modem Service. This protocol is named Reliable Octet Stream Encoding or ROSE.

Advances Transport Services benefits:

- ROSE provides error correction for delivery of any payload
- Lower cost of transmission esp. on metered e.g. public networks
- Better battery life in noisy environments to avoid many retransmissions

Create your account on
LoRaCloud.com
to start using Modem Services

SEMTECH

200 Flynn Road, Camarillo, California 93012

Semtech, the Semtech logo and LoRa are registered trademarks or service marks, LoRa Cloud and LoRa Edge are trademarks or service marks, of Semtech Corporation or its affiliates.
LoRaWAN is a licensed mark. All other trademarks and trade names mentioned may be marks and names of their respective companies.
©2022 Semtech Corporation. All rights reserved. *LoRaCloud_Modem-Services_02/22*