



Efento

Bluetooth LE - LTE Gateway

The Efento LTE Gateway automatically transmits data from all Efento Bluetooth Low Energy sensors to the Efento Cloud or any third-party IoT platform over a cellular network. Designed for remote monitoring, the gateway features built-in memory to buffer data during network drops and a backup battery to ensure uninterrupted operation during power outages. With an IP67-rated rugged enclosure, it is built for harsh environments, transportation, and outdoor deployment, and can be easily configured in minutes using a free mobile app.



Key Features

- **GPS location tracking** – The device periodically determines its location using the built-in GPS receiver, enabling monitoring of the asset's position and route (GPS location tracking is not currently supported by Efento Cloud).
- **Cellular connectivity** – Data is transmitted over the cellular network, eliminating the need for a local Wi-Fi network or additional communication infrastructure.
- **Primary power with battery backup** – The device is designed to operate with an external power supply. The built-in rechargeable battery provides backup power during power outages and allows data transmission for a limited period.
- **Environmental protection** – The IP67-rated enclosure provides protection against dust and temporary immersion in water. The protection rating applies only when all cable glands and connectors are properly sealed.
- **Operation during network outages** – If the cellular connection is temporarily unavailable, the gateway stores data in its internal memory and automatically transmits it once the connection is restored.

Applications

The device is designed to collect data from Bluetooth Low Energy (BLE) wireless sensors and transmit it via the cellular network to a cloud platform or the user's external system. It is used in transport monitoring, logistics, and the monitoring of cargo, vehicles, and containers, enabling remote data collection from BLE sensors as well as real-time location tracking using the built-in GPS receiver..

Technical data

Data transmission

Communication module	Quectel EG915U-EU
Cellular network	LTE Cat.1 / GSM
Communication protocol	HTTPS
Transmission interval / heartbeat	User configurable

Bluetooth

Bluetooth module	Nordic nRF52840
Operating frequency	2.4 GHz
Range	Up to 200 m (LOS, BLE 5.0)
Bluetooth version	Bluetooth Low Energy (5.0)

GPS positioning

Positioning systems	GPS + BeiDou
Coordinate reporting	With every heartbeat
Coordinate format	Degrees and decimal minutes

Equipment

BLE antenna	External omnidirectional antenna, 2.4 - 2.5 GHz (RP-SMA, 2 dBi)
SIM card	Nano SIM / E-SIM
Internal memory	32 MB (offline data storage)

Power Supply

External power supply	USB-C, 5 - 48 V DC
Battery power	Li-Ion 3200 mAh

Operating conditions

Operating temperature	-20°C to +60°C
Operating humidity	Up to 95% RH (non-condensing)
Charging temperature	0°C to +45°C

Construction

Protection rating	IP67
Enclosure dimensions	122,4 × 723 × 348 mm
Enclosure material	ABS + PC plastic, colour: gray
Device weight	237 g