ManageBOX-BLUEGATE is an IoT gateway designed for tracking applications (asset, people tracking) using Bluetooth Low-Energy based active tags.

ManageBOX-BLUEGATE captures Bluetooth advertise packets and sends to a pre-defined server with RSSI value. Packets can be filtered using fields of BLE packet content.

Server connection is established using optionally WiFi or 4G cellular connection, or using both as main and backup connections.

A static TCP connection is established to stream tag data in real-time to server, using a special protocol.

Automatic connection switching (WiFi - 4G) and automatic restart mechanisms used to ensure uninterrupted, reliable operation.

Technical Features

- Bluetooth subsystem is based on Nordic's industry standart NRF52 system-on-chip

- Bluetooth support: BLE 4.2 (firmware upgradable to BLE 5.2)

- Server connection:
    - WiFi support
    - Optional cellular backup support

- WiFi :
    - 2.4GHz, 802.11b/g/n support
    - Fixed IP or DHCP support

- Cellular (optional):
    - 2G + 4G support
    - External SMA antenna
    - Push-push type SIM holder
    - APN, user/pass configuration

- TCP-IP protocol support : TCP, , FTP, HTTP

- Automatic remote firmware update via FTP (from configured FTP server)

- Serial (TTL) command line interface for configuration and debugging

- Power input: 5V - 1A DC adaptor

- Crimp type connector for I/O expansion and TTL console uart

- ABS plastic housing

- Physical dimensions: 76 x 112 x 26mm