



miALERT
Gen2 RTLS

miPOSITION
Gateway

Repeater BTLE



LOCATION GATEWAY - LoRa - BTLE

- Location detecting using bluetooth technology
- Detect the presence of bluetooth low energy devices
- Report the presence of bluetooth devices using the miALERT EMS system
- Works with miALERT BTLE devices and Android or iPHONE mobile phones and tablets





IP GATEWAY KEY FEATURES

miALERT IP Gateway is designed to interface with up to 32 assignable wireless Repeaters which can trigger local input and output controls and also send notifications to the miLINK EMS (Event Management Server). It is designed to be mounted in corridors or common area ceilings. Also supports our proprietary miBUS interface that can support up to 32 I/O wired control devices.

- Optional Power over Ethernet (PoE) feature
- Supports over-the-air updates to Repeater
- Web browser interface for IP connectivity and keep alive notification



REPEATER KEY FEATURES

- Low-power Bluetooth SoC for long-term battery operation
- 2 x AA batteries or DC Supply 12V - 24VDC
- 2 x AA : battery life up to 48 hours of battery backup (depending on beacon settings)
- External POE module available
- 3 Radio arrays - Bluetooth for MiPosition - LR 2.4Ghz for Emergency TX/RX - LoRa 915MHz for Gateway Communications TX/RX
- Tamper Switch
- 6 Bluetooth RF power steps for controlling range (2-15 meter)
- Bluetooth Low Energy 4.1
- Profiles GAP / GATT



BLUETOOTH PENDANT & TAG

- Runs on Coin Type Cell Battery
- Accelerometer for establishing movement for person and asset tracking
- Accelerometer algorithm to maximize battery life

MiPOSITION LOCATION, PEOPLE, & ASSET TRACKING



TRANSMIT MODE

- The RF power can be set by either the BT chip or by external attenuators or a combination.
- Internally in the BT chip there is the possibility to have 2dB power step, from 0 - -30 dBm
- There are 3 external attenuator choices, 0, -8 and -16 dBm of loss.
- Total power range is from 0 to -46dBm.
- Range in meter, 2 - 15 meters in transmit mode

RECEIVER MODE

- In receiver mode sensitivity is controlled by external attenuators.
- 3 choices: Full, -8 or -16 dBm receiver sensitivity
- Receiver range is depending on the transmitted device power. 0 dBm transmit power from a device gives a range detection from 2 - 15 meters.

USE CASE - People Tracking with BTLE

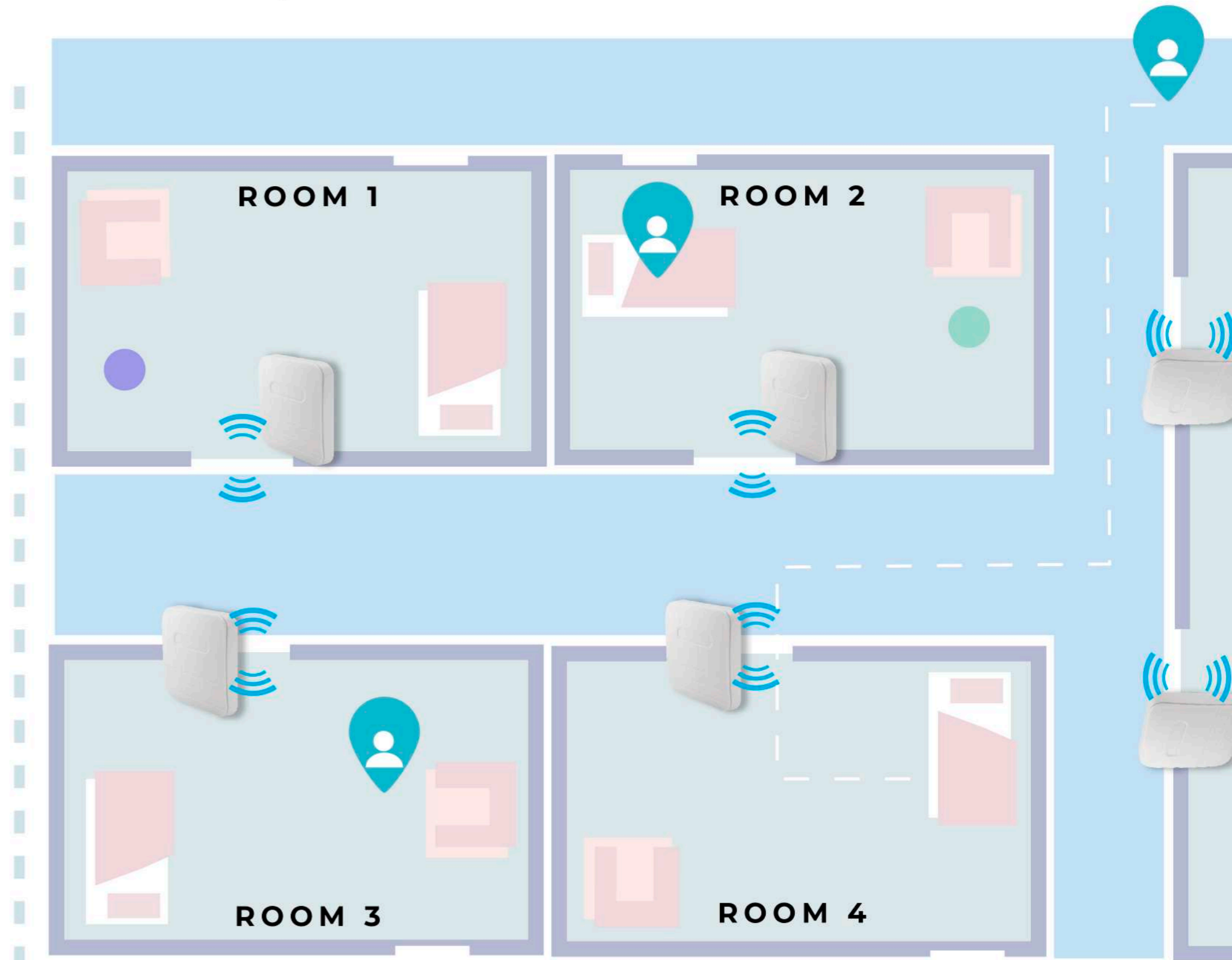
With this configuration, the system can report where both a resident, and a staff member, is located.

USE

- **Emergency in a room**
- **Safety of a wandering resident**
- Locates wandering resident
- Knows how close by nurse is
- Informs staff either by voice announcement or Alarm Simple SIP message

SYSTEM CONFIGURATION

- **BTLE Remote** is mounted on each room entry to place the person in room
- Or if room supports voice, an **Evan tablet** which supports same feature can be used
- All communications sent back to **MiAlert Server via LoRa or LAN**
- The person being tracked must have a **BTLE device**

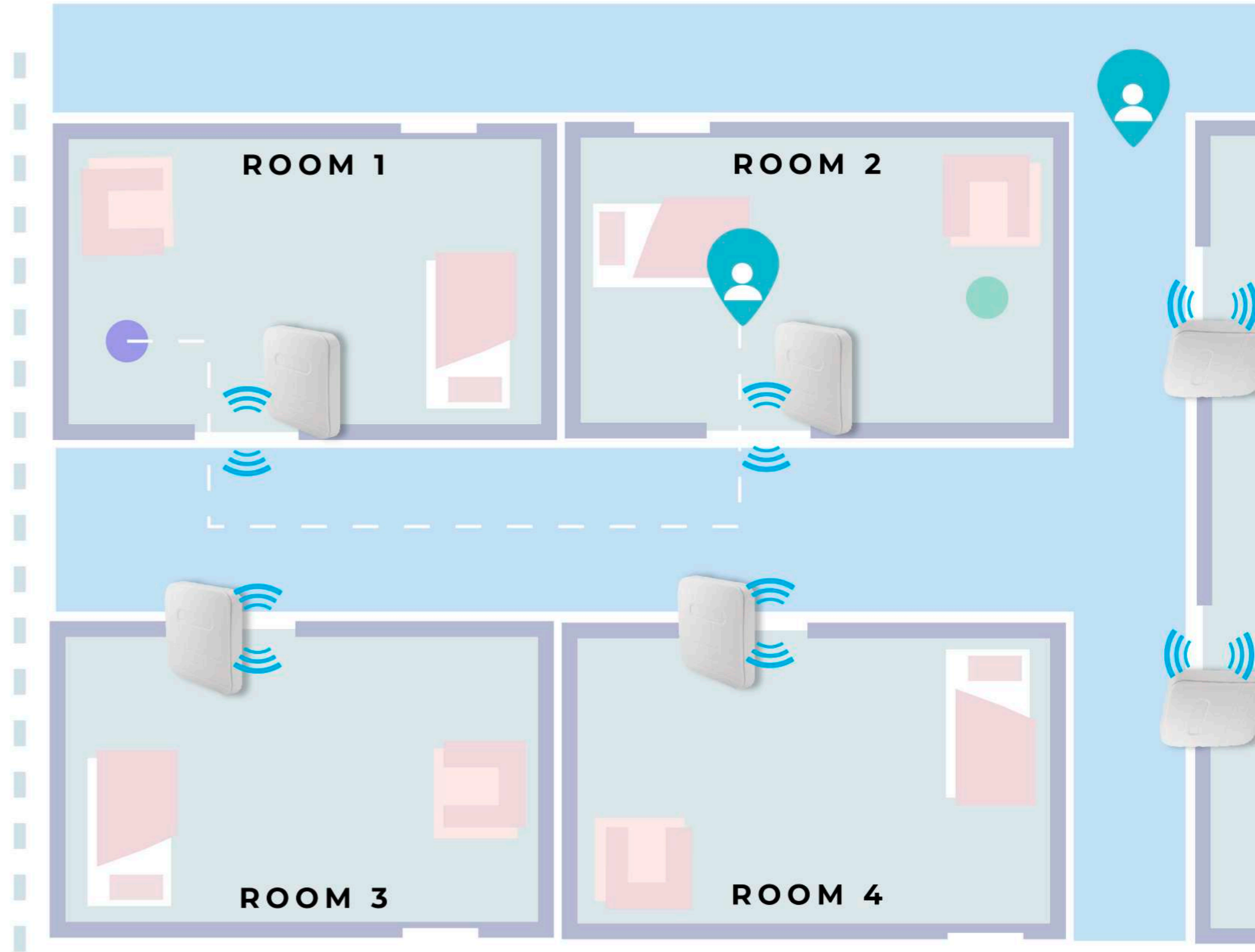


USE CASE - Nursing Home, Task Lists

Requires smartphone BT and EMS MiLink VoIP system for tracking

CASE

- Nurse enters room 1 and receives a task list via Simple SIP Messaging.
- Nurse completes tasks.
- Nurse moves down the hall and is tracked to next miPosition Repeater.
- System detects that the nurse moves to new room.
- The nurse is notified about which room she must move to next

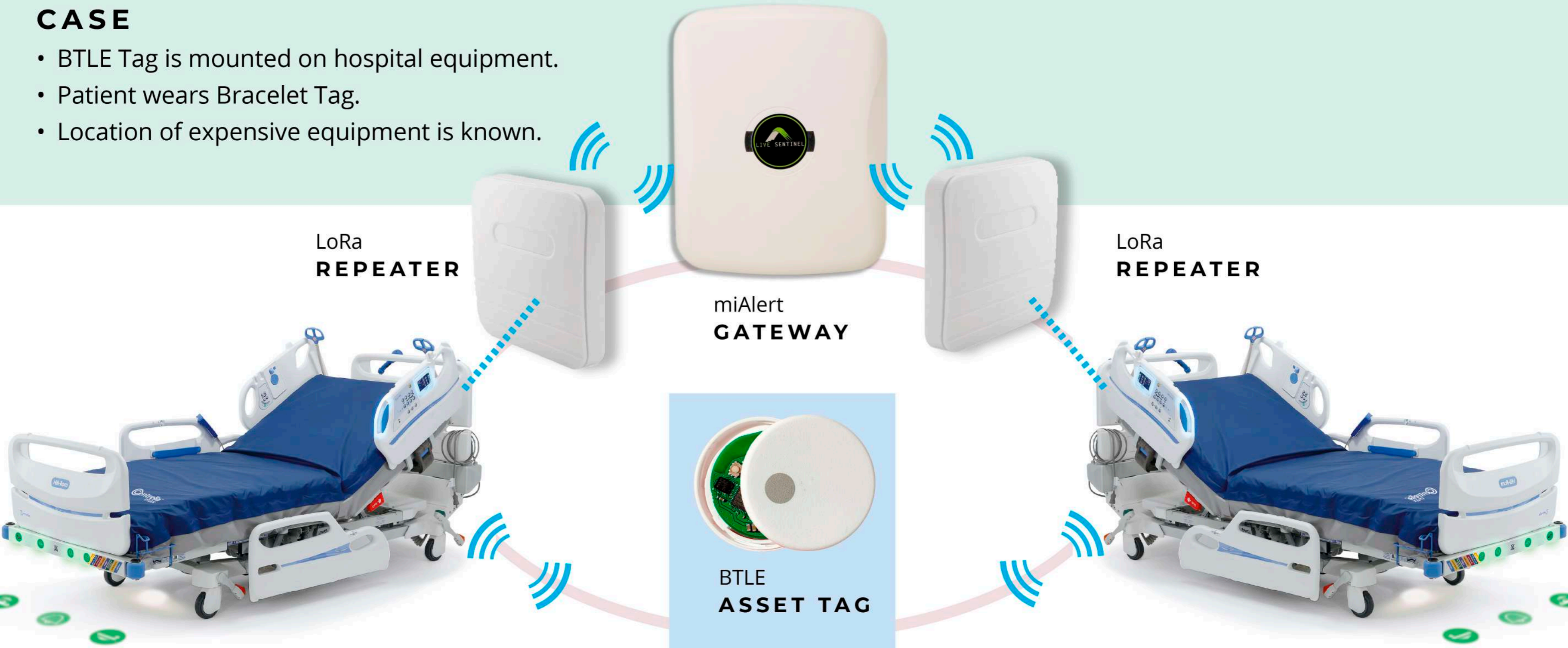


USE CASE - Asset Tracking, MiAlert BTLE Tag

Requires BTLE Tag mounted on the equipment to be tracked and the area must be covered by MiAlert EMS system.

CASE

- BTLE Tag is mounted on hospital equipment.
- Patient wears Bracelet Tag.
- Location of expensive equipment is known.



HOW IS THIS POSSIBLE?

1

The BTLE Repeater detects the BTLE devices, BTLE Pendant or TAG, BTLE enabled devices.



The BTLE Repeater reports the detected BT devices via Gateway to MiAlert EMS system.



2

The MiAlert EMS system positioning API reports to the ALARM server.



3

The ALARM server API is ready and freely available.

miAlert supports this interface