

Configuring Blue Puck/Coin/Slim ID beacons

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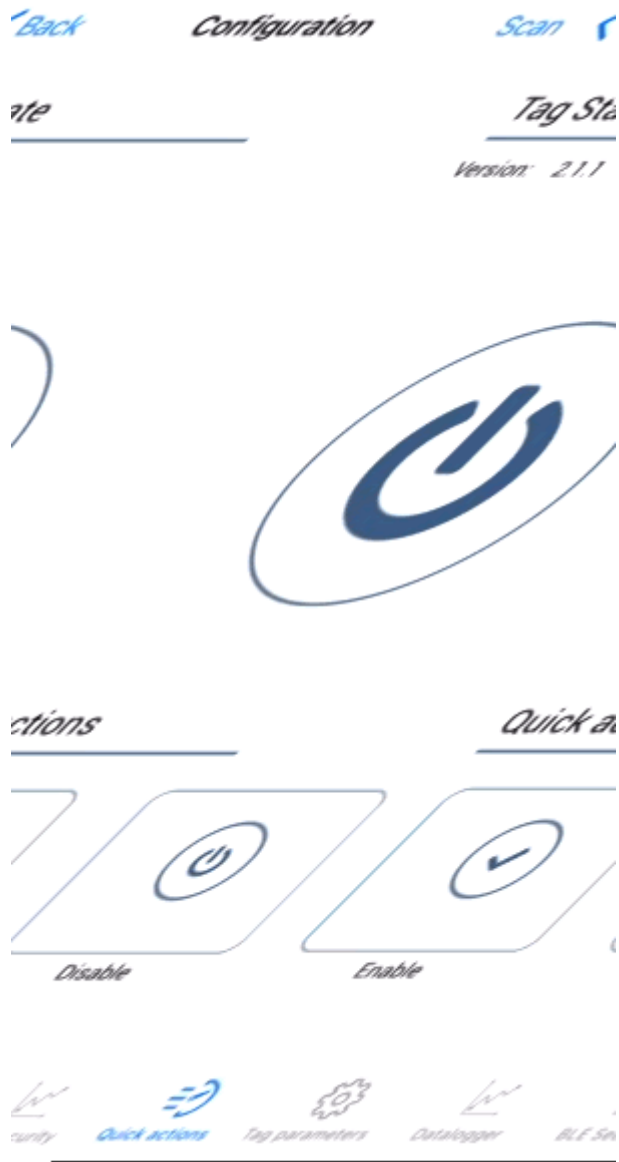
Configuring Blue Puck/Coin/Slim BLE advertising Beacon

1. Bluetooth® LE Blue Puck, Blue Coin and Blue Slim beacons are disabled by default. Configurations to these beacons are written through NFC. To do this download Device Manager Mobile by Ela from Google Play Store to your device, can be also downloaded to your Apple phone, tested with iPhone X model.

Note: Device that is used for configuring Blue Puck/Coin BLE advertising sensors must support NFC read/write functionality.

2. Follow these instructions to easily configure Blue Puck/Coin/Slim Bluetooth® LE advertising Beacon:

- Enable Bluetooth® and NFC on your Android-powered device.
- Launch Device Manager Mobile on your device.
- Select Configuration.
- Place your device on top of Blue Puck/Coin/Slim BLE advertising Beacon to scan it.
- Click Enable to allow Blue Puck/Coin/Slim Beacon transmit advertising data.
- Place your device on top of Blue Puck/Coin/Slim BLE advertising Beacon again to scan the changes.



- We recommend to set Power to 4 to get the best possible distance.
- Set TAG Format to iBeacon.
- Set BLE Emit Period to 1 seconds to get best possible sensor detection.
- Click Write button.
- Place your device on top of Blue Puck/Coin/Slim BLE advertising sensor to write configuration to it.

Tag State

Version: 2.1.1



Quick actions



Enable



Disable



Quick actions



Tag parameters



Datalogger



BLE Security

- Any Beacon ID can be typed in, as long as it in hex format.

Note: Beacon UUID must have 32 values set.

In the example below, Beacon UUID is AAAAAAAAAAAAAAAAAAABBCC526F6F6D31 When converted from **HEX** to **DEC**, 526F6F6D31 means **Room1**, to make beacon identifying easier.

Major: 5231 when converted from **HEX** to **DEC**, it means **R1**

Minor: 010A

Tools



Configuration

Bluetooth

Advertising Name ?
Beacon 1

TAG Enable State ?

TAG Power ?
4

TAG Format ?
iBeacon

BLE Emit Period ?
1

Manufacturer Data Mode ?

[Quick actions](#) [Tag parameters](#) [Datalogger](#) [BLE Security](#)

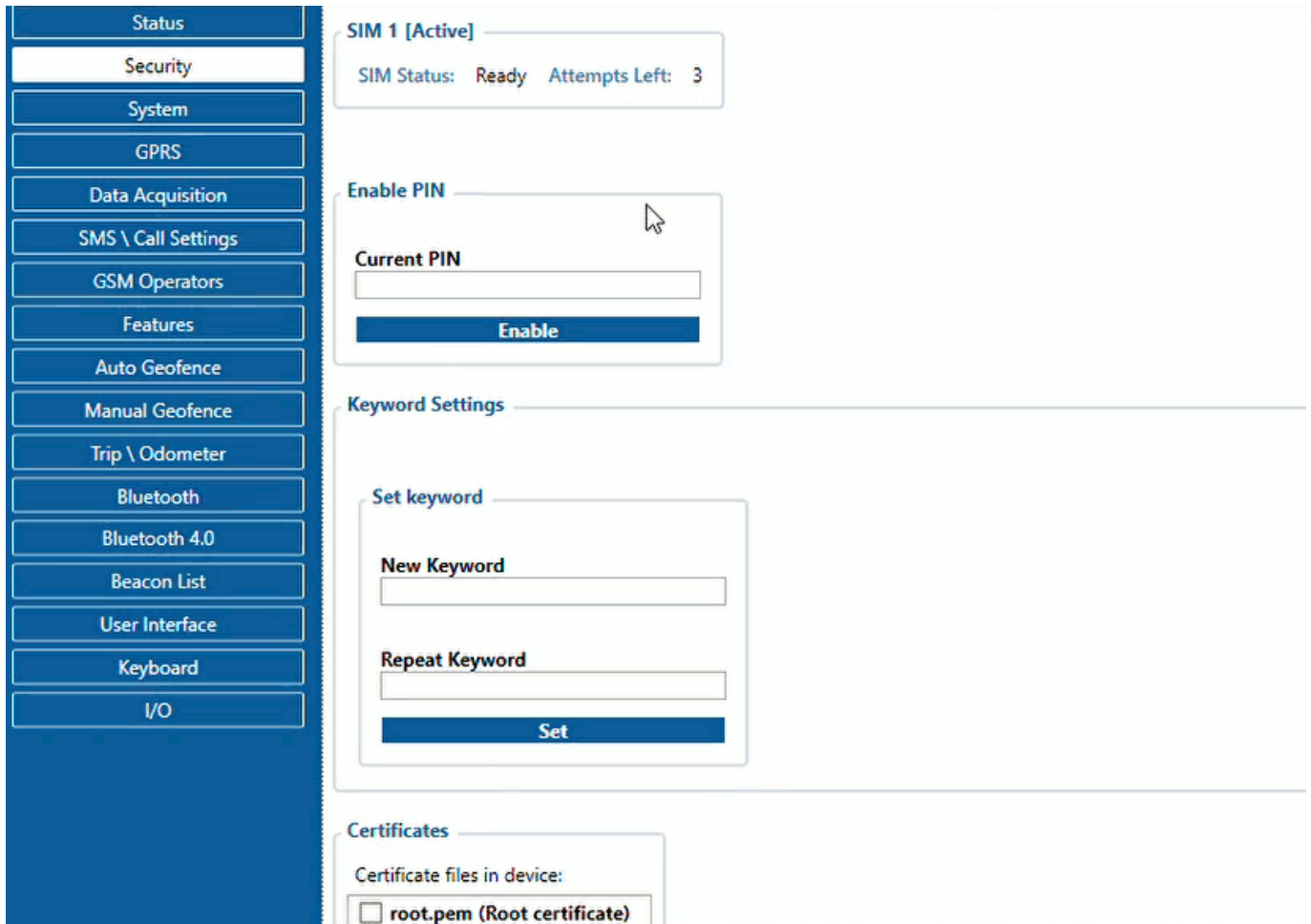
Configuring device

⚠ Before Beacon configuration, visit [how to set up your device for the very first data sending to the server](#): [Setting up your configuration for the very first data sending to the server](#)

These are instructions on how to easily configure ELA Blue Puck/Coin/Slim Beacon ID with Teltonika Configurator on GH5200 device.

1. First the device **Bluetooth® settings** need to be configured. These are the required steps:

- Press Bluetooth® settings
- Turn on BT Radio by pressing Enable (hidden) or Enable (visible)



2. Press **Beacon list** tab.

- Select All or Configured (for seeing only preferred beacons) in Beacon Detection options.
- If you have selected Configured to see preferred beacons, you must add beacons to the Beacons list.
- Select Periodic option
- Set **Periodic settings** according to your needs.
- After all these steps press Save to device to save the configuration.

✘ To find out how to add beacons to the Beacons list, click on one of the devices: [TST100](#) | [TFT100](#) | [GH5200](#) | [TMT250](#)

The screenshot displays the Teltonika configuration web interface. At the top, there is a navigation bar with the Teltonika logo and several utility buttons: 'Load from device', 'Save to device', 'Update firmware', 'Reset configuration', 'Load from file', 'Save to file', 'Read records', and 'Reboot device'. On the left side, a vertical menu lists various system settings categories: Status, Security, System (highlighted), GPRS, Data Acquisition, SMS \ Call Settings, GSM Operators, Features, Auto Geofence, Manual Geofence, Trip \ Odometer, Bluetooth, Bluetooth 4.0, Beacon List, User Interface, Keyboard, and I/O.

The main content area is divided into several configuration panels:

- System Settings:**
 - Records Saving/Sending Without TS: After Position Fix (Always), After Time Sync (selected)
 - GNSS Source: BeiDou, GLONASS (selected), Galileo, GPS
 - Data Protocol: Codec 8, Codec 8 Extended (selected)
 - Power On By USB/Charger: Disable, Enable (selected)
- Static Navigation Settings:**
 - Static Navigation: Disable, Enable (selected)
- Sleep Mode:**
 - Sleep Settings: Disable, GPS Sleep, Deep Sleep (selected), Online Deep Sleep, Ultra Sleep
 - Sleep Exit Source: Movement (selected), Button
 - Timeout (min): 1
- Time Synchronization:**
 - NTP Resync (h): 3
 - NTP Server 1: avl1.teltonika.it
 - NTP Server 2: pool.ntp.org
- Movement Settings:**
 - Movement Start Delay (s): 5
 - Movement Stop Delay (s): 60
- Tracking Mode:**
 - Power Saving Mode: Performance (selected), Low Power

3. Now you can see detected Beacons in **Status -> Beacons List**



4. Example of the server view:



In the server view picture above, displayed:

- The date when the packet arrived to the server
- Device IMEI number
- AVL ID 385 - Beacon AVL ID
- Beacon ID and RSSI

Beacon 1 ID: 0102030405060708090A0B0C0D0E0F00020B010A

Beacon 1 Major: 020B

Beacon 1 Minor: 010A

RSSI: -60

Beacon 2 ID: AAAAAAAAAAAAAAAAAABCC526F6F6D31
 Beacon 2 Major: 5231
 Beacon 2 Minor: 010A
 RSSI: -56

Configured iBeacon packet data structure

Example of configured data parsing which comes with AVL ID 385
Two detected Beacons:

11210102030405060708090A0B0C0D0E0F00020B010AC421AAAAAAAAAAAAAAAAABCC526F6F6D315231010AC8

	Data Part ¹	11
First Beacon:		
	iBeacon with RSSI flag ²	21
	UUID (Beacon #1)	0102030405060708090A0B0C0D0E0F00
	Major	020B
	Minor	010A
	RSSI (Signal Strength: Signed 2's complement)	C4 (-60)
Second Beacon:		
	iBeacon with RSSI flag ²	21
	UUID (Beacon #2)	AAAAAAAAAAAAAAAAABCC526F6F6D31
	Major	5231
	Minor	010A
	RSSI (Signal Strength: Signed 2's complement)	C8 (-56)

¹ Data part **11** - 1 Record out of 1 Beacon record. First half byte specifies current record, second half specifies how many there are in total. For example: 23 - second record out of three records (that means the server can expect 1 more records with Event I/O ID 385). If the data does not fit in a single data transfer, they are separated. Data Part is used to determine if more data will be coming from the device. **Maximum value of the Data part is 33.**

² Flags:

Flags:

- 21 iBeacon with RSSI
- 23 iBeacon with RSSI, Battery Voltage
- 27 iBeacon with RSSI, Battery Voltage, Temperature
- 01 Eddystone with RSSI
- 03 Eddystone with RSSI, Battery Voltage
- 07 Eddystone with RSSI, Battery Voltage, Temperature