How to capture BLE broadcasting service ID

Contents

Introduction

In order to capture the BLE broadcast service ID we need to use the **Advanced Beacon Mode** ,this feature is available in the base firmware of Teltonika Telematics device. For these instructions, we have 4 steps to follow **Parsing**, **Device Configuration**, **Beacon Capturing Configuration,** and **Verifying BLE data**.

Parsing

1. You need to capture the raw data of your FMB device. To capture the BLE RAW data, you can look for any mobile or desktop application that is capable of capturing BLE RAW data.

FMB BLE RAW DATA
`0x0201021209464D433133305F373338393939325F4C4503031010020A00`

2. Next is to parse the FMB BLE RAW DATA according to the Teltonika data protocol.

Unparsed FMB BLE RAW DATA received in hexadecimal stream

0x020102 1209 464D433133305F373338393939325F4C45 0303 1010 020A00

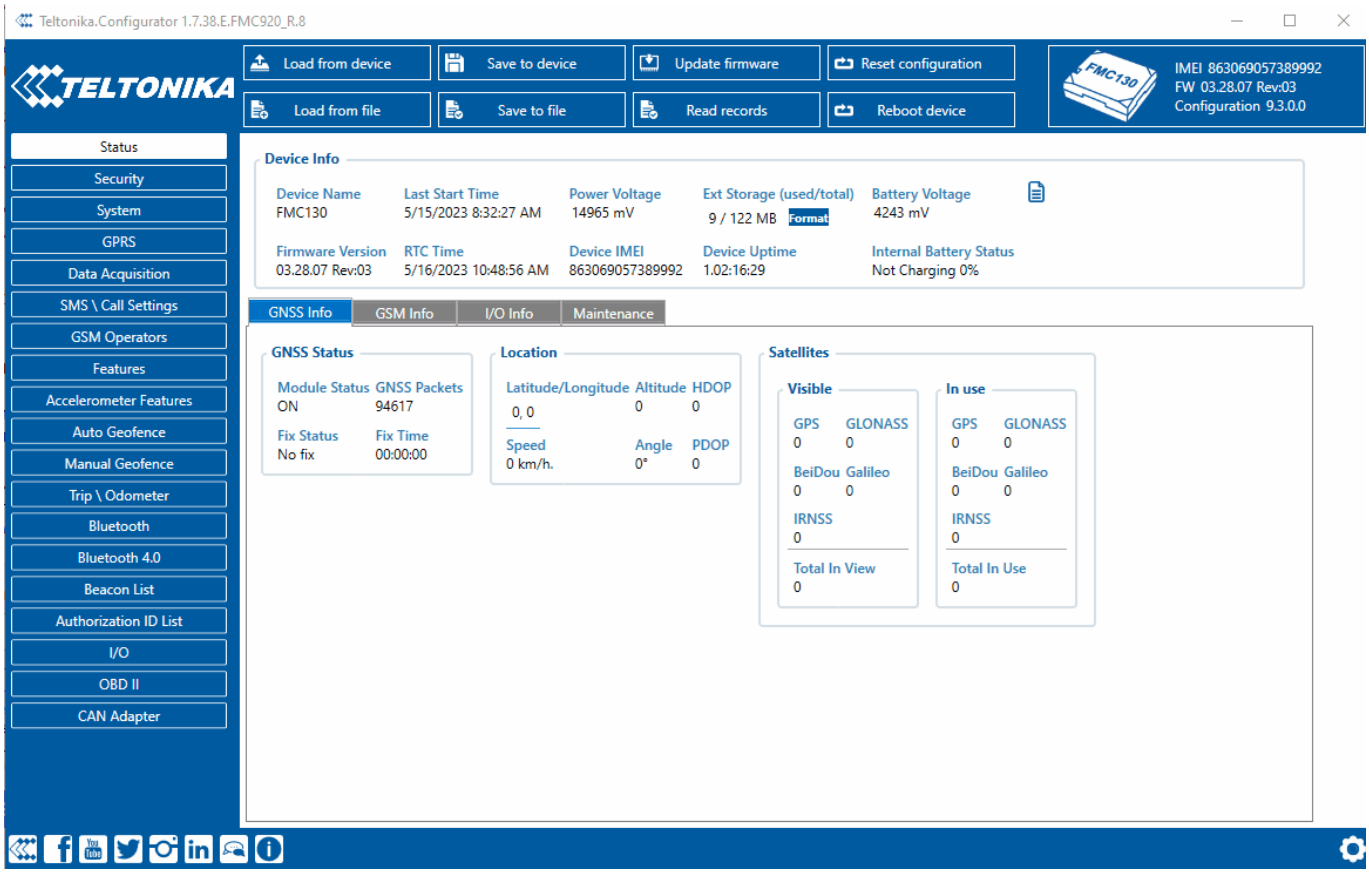
BLE Data Packet Part	HEX Code Part
Manufacturer ID	02 01 02
	1209
Additional Information	46 4D 43 31 33 30 5F 37 33 38 39 39 39 32 5F 4C 45
	03 03
BLE ID	10 10
	020A00

Device Configuration

To enable the advanced beacon mode, please follow the steps below.

1. Go to System from the **Data Protocol** select **Codec 8 extended.**

2. Go to Bluetooth® from the **General** go to **BT Radio** select **Enable (hidden)/Enable (visible).**
3. Go to Bluetooth® 4.0 from the **Common settings** go to **Non Stop Scan** select **Enable.**
4. Go to Beacon list from the **Beacon detection** select **All** , and from the **Beacon mode** select **Advanced.**
5. You may now create your own Beacon Capturing Configuration.



Beacon Capturing Configuration

Creating a beacon capturing configuration is based on the parsing details of the FMB device RAW data. To learn more about advanced beacon mode configuration please click **here**. Now let's start creating the configuration, to begin please follow the steps below

1. Look on the parsing details.

2. Fill all the necessary information that is needed for Beacon Capturing Configuration.

- **Name -** This is the name of your Beacon Capturing Configuration.
- **Manufacturer ID - 02 01 02** - It consists of 4 Bytes (8 bits) and it is required to fill in the table the full ID of 4 Bytes so the value will become **02 01 02 00**
- **Manufacturer ID Offset-** 0 byte.
- **Manufacturer ID Size** - 3 bytes
- **Beacon ID Offset** - 24 bytes
- **Beacon ID Size** - 2 bytes
- **Additional Information Offset** - 5 bytes

- **Additional Information Data Size** - 18 bytes

After that, your configuration should look like the image below.

3. To verify if your configuration is correct go to **Device Status** check the **Beacon info** and verify the data in the **Visible Beacons.**

Captured BLE ID using Teltonika Configurator

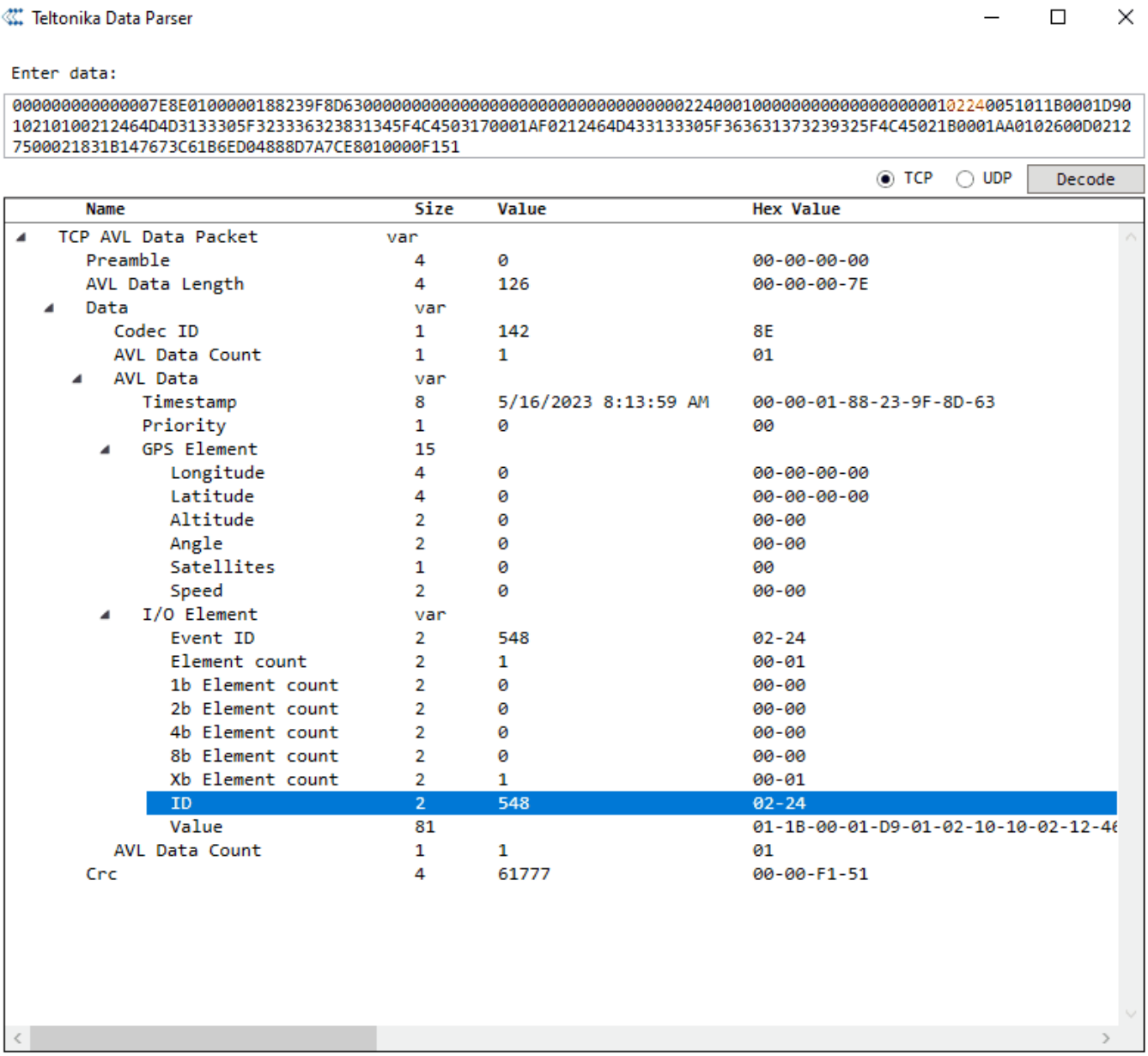
Parameter Value	Description
FMB	Name of your configuration
1010	BLE broadcasting service ID
464D433133305F373338393939325F4C45	Additional Information or the Bluetooth® Local Name

Note: 464D433133305F373338393939325F4C45 - once converted to ASCII it will be equal to Local Bluetooth® Name - FMC130_7389992_LE

Verifying BLE data

Advance Beacon mode RAW data is available in **AVL ID 548.**

- For parsing example please click **here**.
- We can also use the Teltonika Data Parser to check manually the raw data coming from the server.



Showing AVL ID 548 using Teltonika Data Parser