# VelaLab reference Manual

November 23, 2017

# 1 System Architecture

Figure of the system...

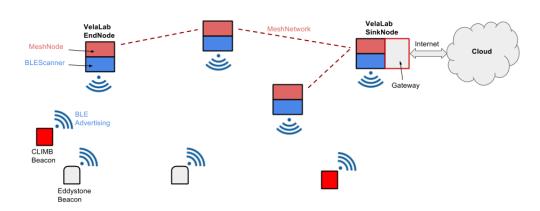


Figure 1:

### 1.1 Namings and conventions

### 2 Beacons

Types:

- CLIMB (custom)
- Eddystone

# 3 VelaLab End-Node

#### Components:

- BLE Scanner
- Mesh Node

#### 3.1 Hardware interconnection

fig...

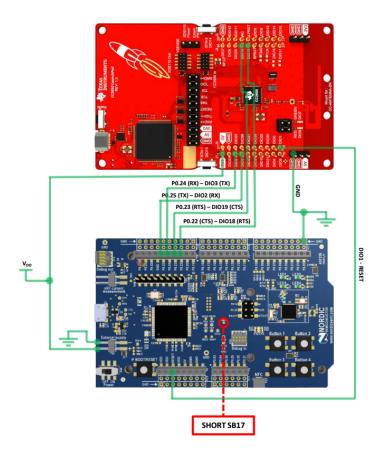


Figure 2:

The Launchpad image refers to the revision 1.0 of the hardware. In that version the DIO2 and DIO3 pins were incorrectly labelled (labels are swapped

with respect to actual pin location). This scheme refers to the actual wiring position, then discard any label on the board and just wire as shown.

#### 3.2 Communication protocol

UART communication protocol between BLE Scanner and Mesh Node

#### 4 VelaLab Sink-Node

Components:

- Mesh Sink
- Gateway

#### 4.1 Hardware interconnection

Launchpad usb output to RPI's USB

### 4.2 Communication protocol

UART communication protocol between Mesh Sink and Gateway