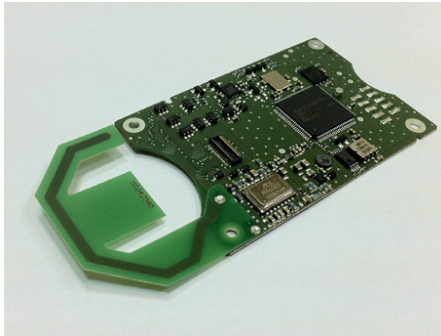


TRBOnet.InDoor





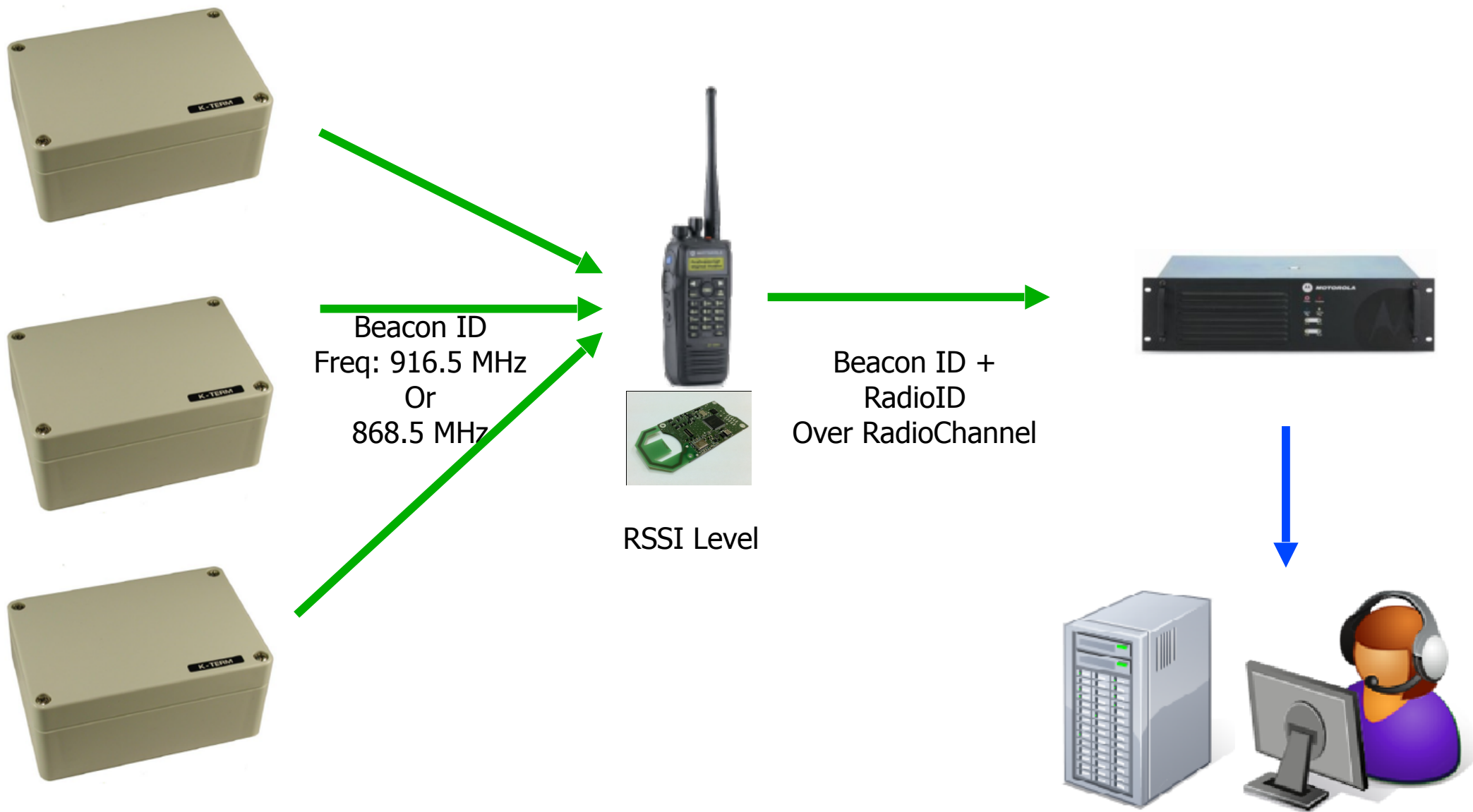
Beacon (Transmitter)



Option Board with Antenna (Receiver)

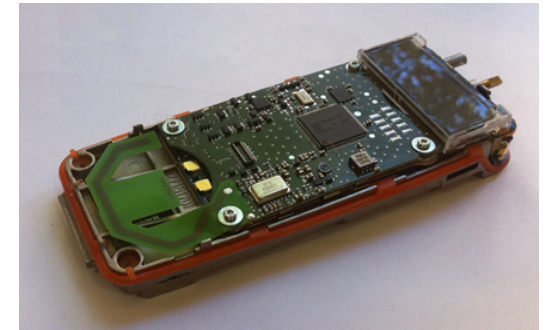


TRBOnet Software

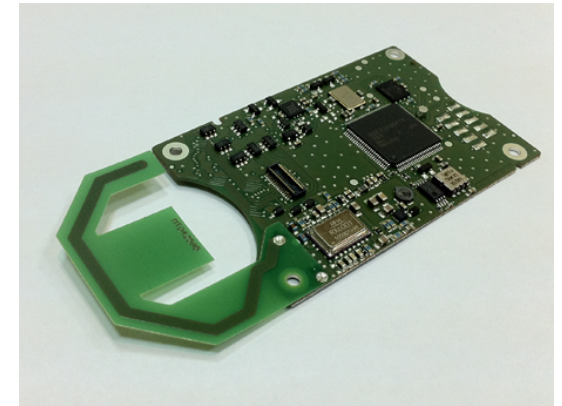


Each beacon has a unique ID

- TRBOnet Enterprise 3.0
- Hardware - Option Board + Beacon
- Beacon Battery: 2-3 year
- Beacon Range: from 0,5 meter to 25 meters
- Indoor & Outdoor solution
- 2D and 3D maps
- Two solutions:
 - Indoor Positioning
 - Guard Tour (December2011)



- Option Board always receives IDs of beacons
- RSSI is used to define a beacon which is the closest to a radio
- Event Driven Model: transmits as per configuration
- Data package contains at least:
 - Current beacon ID
 - Previous beacon ID
- May send a beacon battery level, GPS locations etc
- ManDown embedded
- Emergency: Native MOTOTRBO or Custom with alarm description



- Beacon always transmits ID
- The minimal beacon transmission interval – 300 ms
- Freq: 916.5 MHz or 868.5 MHz
- Examples:
 - beacon installed at entrance: interval - 300 ms
 - or beacon installed in a tunnel (radio is on a train): interval - 300 ms
 - beacon installed in room: interval - once a second
- IP65 approved
- ATEX / IP67 on request





- Does not use a battery
- Transmits only when RedButton is pressed.
- Remains active for approx 20 seconds
- Best for Guard Tour

- IP65 approved
- ATEX / IP67 on request

- Event driven model:
 - Entering Site event
 - Leaving Site event
 - Emergency only(orange button)
- Number of units per channel - depends on many factors
 - Number of beacons, radios, events, voice calls
- DATA is sent over **voice** Channels
- Option Board Transmit time ~ 660 ms. In fact up to 3 seconds (i.e., bad RSSI)
- Recommendation:
 - Good RSSI (Coverage)
 - Compressed UDP Header
 - The best is to use CapacityPlus



CapacityPlus

File View Map Tools Help

GPS Positioning



- Online Dis...
- NEOCO...
- Security 1
 - Alfa 11
 - Birdie 9
 - L. Moon 3
 - M. Kim 5
- Security 2
 - J. Smith

Radio

GPS Positioning

Text Messages

Event Log

Reports and Statistics

Administer

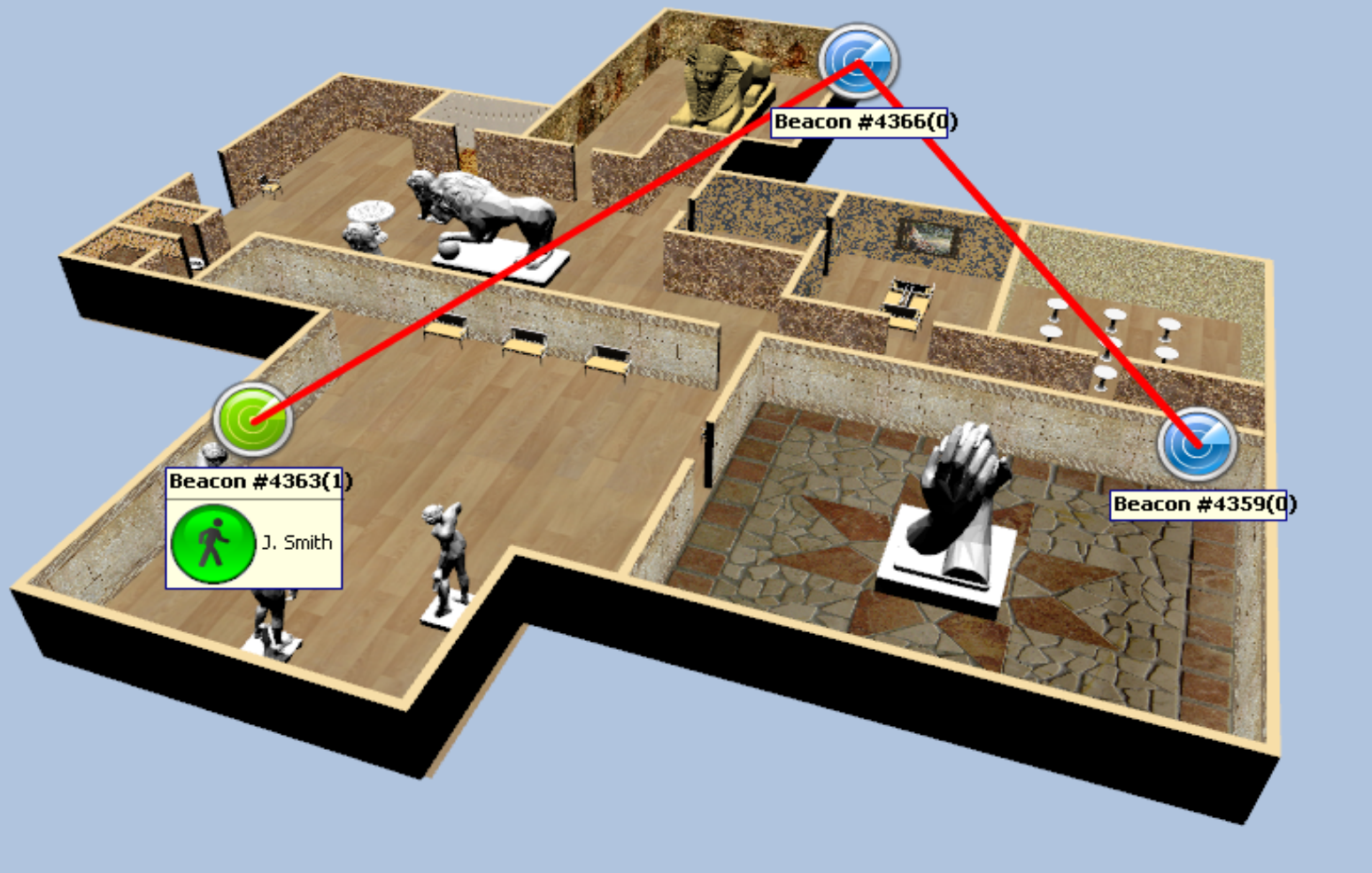
Map

1: Line free Slot #1 Slot #2
Железный агент Базовая станция #2

OpenStreetMap **Museum**

Beacon #4359 Show Beacons: All Show Route... Clear Route History Overview

Background: 15



R... R... R... Ac... Us... Be... Beacons Events