VerticalMan

THE SOLUTION FOR SECURITY OF LONE WORKER

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Targets

▶ Guarantee the lone worker security

▶ Follow the law

Many countries have specific law to safeguard lone worker

VerticalMan – What does it do

The Android App VerticalMan, allows the survey of the dangerous situations :

"Man Down" monitors the worker's vertical posture, checking that it will not exceed an inclination angle and that this situation will not persist over time.

«Motionless Man» monitors if the worker does not do movements, even minimal, in a period of time.

If the situations will be relevated it is reported with local alarm (visual and acoustic) and remotely notified through web service, phone call, SMS or email.

VerticalMan – Special characteristics 1/2

▶ Four notification systems, all of them can be activated in the same time:

- ▪ Phone call
- ▪ SMS
- ▪ Web service (integration with centralized alarm system)
- ▪ Email

▶ Extreme configurability (more than 100 parameters)

▶ Centralized configuration through web application

▶ Designed and realized paying attention at the security

- ▪ Only one main screen without elements that can be selected accidentally
- ▪ Volume auto-set during the alarm
- ▪ Access to the configuration protected by a password
- ▪ Alarms for no connectivity, wrong configuration or low battery
- ▪ Simple, accessible and intuitive user interface

VerticalMan – Special characteristics 2/2

▶ Indoor positioning (IPS) through a Beacon network.

▶ Possible to connect by Bluetooth an external physical button with panic button feature.

▶ Support for external low battery consumption sensors MetaWear-R with the possibility to be charged through USB.

▶ Stop alarms with device shaking.

▶ Activation of device flash during alarms to allow the detection of the worker in not illuminated places

▶ Audio registration of the notification through phone call for subsequent investigations.

▶ SMS personalization with some own templates, with the possibility of sending GPS coordinates already usable with Google Maps and OsmAndMap (Open Street Map)
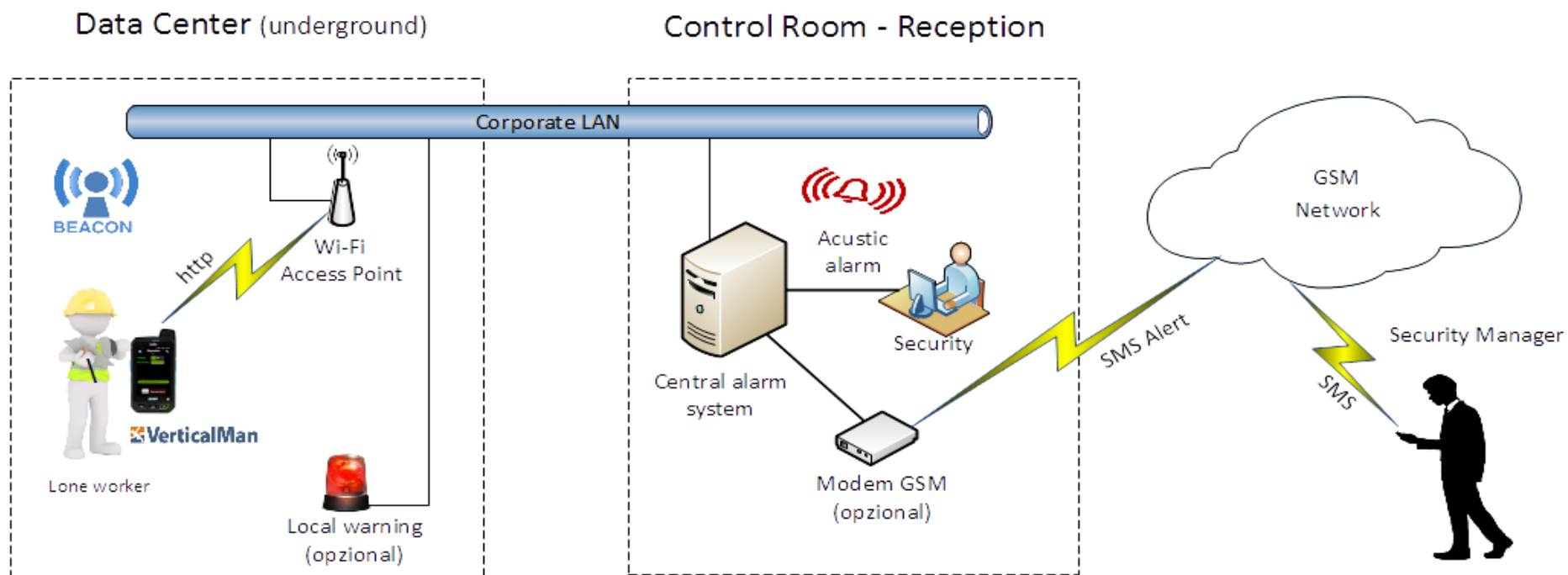
VerticalMan – Wi-Fi areas use 1/2

The VerticalMan's particularity, compared to the competitions, is the possibility of notificate the alarm through the corporate Wi-Fi connectivity, to make yourself autonomous from the GSM operator. This allows to:

➢ Use VerticalMan also in places where there is not the GSM signal (indoor areas of buildings, underground locals, etc.)

➢ Do not bind with the availability of the service offered by third parts (GSM operator) in case of emergencies.

➢ Do not need a GSM SIM that has to be managed also administratively to be at least maintained active

➢ Be able to monitor the functioning of all own devices of the net that take part to make the entire system extremely safe.

VerticalMan – Utilizzo aree Wi-Fi 2/2

VerticalMan indoor scenario

VerticalMan – Indoor Position System

If the operator does his tasks inside a building, the GPS positioning is not enough to locate him quickly in case of necessity.

It is possible to locate the operator with VerticalMan through two indoor localization systems:

1. Identification (SSID e BSSID) of the WiFi access point to which it is connected.

   - WiFi connectivity necessity in every place the operator works and offers an accuracy radius that could be very large, but it is not definable

2. Identification through Bluetooth beacon

   - Allows the localization also in very wide areas with the use of industrial beacons.

   - Allows the design of a very accurate coverage of the areas working on the trasmissive power of the beacons.

   - The beacons do not require the cabling because they are fed by batteries, in industrial versions with a 4 years duration.

   - They can be used also in Atex areas zone 1 or 2

Beacon - Indoor Position System

- ▶ Speeds up the operators research in indoor

- ▶ Easy installation

- ▶ Low maintenance

- ▶ Low cost

Device example: Samsung Xcover 4

- ▶ **5.0 screen''** - Touch screen that could be used also with dirty or wet gloves

- ▶ Battery (2800 mAh Li-Ion)

- ▶ IP68 –continue immersion and dust resistant

- ▶ Resistant to small falls

- ▶ Android™ 7.0

- ▶ Bluetooth® 4.0 incl. BLE (Bluetooth® Low Energy)

- ▶ Extremely lightweight (172g)

Device example Atex : Ecom Smart-Ex 01

- ▶ Atex Zone 1 certificate

- ▶ Ultra-resistant, provided with LTE / WiFi / Android™

- ▶ **Multi-touch capacitive da 4.0 screen''** made in Gorilla Glass® 2 - Touch screen that can be used also under the direct sunlight and if you are wearing wet or dirty gloves.

- ▶ High volume speaker with the noise reduction.

- ▶ High performance battery (3600 mAh Li-Ion)

- ▶ IP68 – continue immersion and dust resistant

- ▶ Falls resistant

- ▶ Android™ 5.1

- ▶ Bluetooth® 4.0 incl. BLE (Bluetooth® Low Energy)

VerticalMan – **Partner**

Corporate Alarm System

Aldea EcoroLite

Centralized configuration management

Beacon

Estimote o Ecom beacon

Aldea eCoRo App

SMS notification received

Panic Button

Flic button

Sensore esterno

MetaWear Sensor

VerticalMan – Advantages and benefits

- It does not need specific hardware but common smartphones.

- Works correctly on Atex certified devices

- Deeply configurable.

- Localization in outdoor environments with GPS and in indoor environments with Beacon.

- Does not mandatorily need GSM connectivity but can work also with LAN WiFi network only.

- Simple and intuitive user interface.

- Easy configuration directly on the device or centrally with web application.