

# APP Man-Down

In industrial environments

## Personal Safety

- Location and Assistance
- Man-Down
- Lone Worker
- Emergency Button



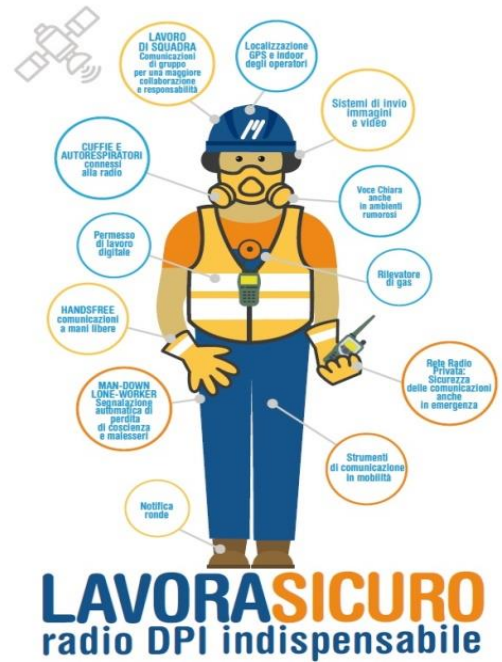
**SAFETY  
FIRST!**

## SAFETY IN INDUSTRIAL AREA

Safety is a complex topic, which constantly affects the daily working activities nowadays.

Safety measures have been introduced, used and optimized in "high-risk companies", such as Oil & Gas, Mining, Chemical / Pharmaceutical, Shipyards, etc. Today the procedures and the security activities no longer concern only those who work within "high-risk companies", but they are increasingly being used also in commonly considered safe areas.

This matter needs to be taken into consideration also in less explicit but potentially equally risky situations, making the workplace a safer place, efficient and immune from legal action in case of accident.



## Mobilcom Man-Down solutions

The solutions, both Radio and Smartphone or other personal devices, allow the workers to operate safely during daily or emergency activities.

The personnel's equipment sends a warning automatically when an anomaly in worker's behavior or posture is spotted, sending also its indoor/outdoor position. The worker is also able to send the emergency by pressing a specific button voluntarily.

The alarm warning is sent to the other devices on field and to an operations center which, through a specific software, is able to alert the personnel in charge and to locate the injured person. The platform is also able to forward an automatic warning to other devices or other parties (email, SMS, call, Text-to-Speech, integration with warning and fire escape center, PLC...)



Thanks to communication systems such as loudspeakers, bright signals, telephone interface, etc. it's possible to dispatch the emergency warning to several interlocutors.

## Inail OT24 rate reduction for man-down devices (Italy only)

Through the presentation of the application form OT24, you can take advantage of the reduction in Inail rate, in case of lone workers using GPS devices "man down".



## Alarm types



**Immobility Alarm:** the alarm is sent if the person remains motionless too many seconds



**Tilt Alarm:** the alarm is sent if the inclination of the person's chest surpasses a certain pre-set degree. This activation can work also in addition to Immobility to reduce false alarms



**Voluntary alarm:** the alarm is sent by pressing voluntarily the button on smartphone/radio



**Lone Worker:** the device sends an alarm signal if not acknowledged periodically

## Devices

- Digital Radio (DMR-TETRA)
- SmartPhone (Android)
- Personal devices ( Datix, Twig, Sigteq, Teltonica, Etc...)
- Watches or wearable Android devices
- Smart Badge Holder



## Operation

- When the device detects an anomaly, and therefore the person is in danger, the system goes into pre-alarm and after a frame set time, if the person still lies in the same position, the application starts to call for help via data, SMS or a voice call, integration with PLC or central...
- The person alerted can vice versa contact the man down device to verify the incident and trigger the necessary rescue.
- If necessary, in alarm phase, the device can be located via GPS through the algorithm **MicroSense** ©

## SMS

It's possible to send text messages, also configurable, by which you can communicate the alarm including geographical coordinates and indoor area.

## Phone Call

An automatic phone call is sent to default contacts in case of alarm, with Text to Speech function for instructions and position of the worker in danger.

## Safety

Access to the setup menu through password.

## Lone-Worker operation

Monitoring system of the lone/isolated worker, with configurable interval.



## Indoor location MicroSense®

The device equipped with Android Application patented MicroSense®, thanks to the sophisticated algorithm, is able to send its position using the prearranged mapping of recorded Wi-Fi networks. The installation and maintenance of Beacon or check point transponder are not necessary.

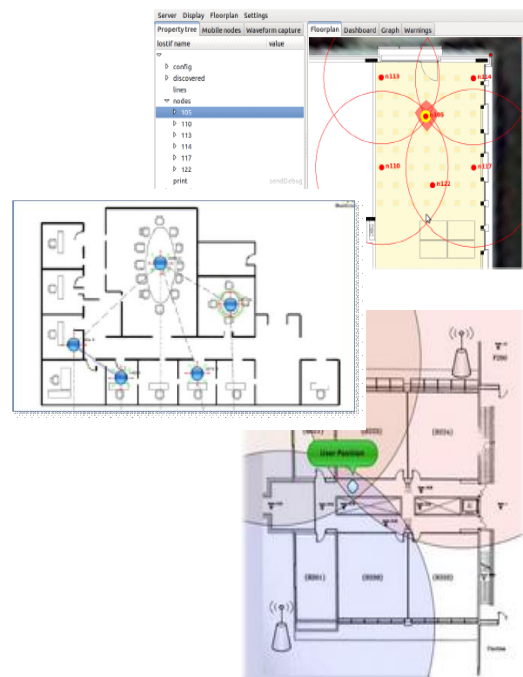
- The indoor areas are mapped through the Wi-Fi area signals footprint
- If more details are needed, more standalone Wi-Fi access point can be added (only connected to the electricity grid)
- The platform gives back, through cartography, the position of workers in danger with a precision of one meter

## Data communication

The danger warning and the location are transmitted to the central server through Wi-Fi, GSM or Radio networks, according to the infrastructure used in the data transmission architecture .

## System architecture

- Wifi Access point of reference
- Personal terminals
- In cloud or in house processing server
- Client HMI



Mobilcom since 1988 designs, supplies and maintains systems and radio communication solutions, telemetry, and remote data transmission.

The Company operates internationally looking after all the phases of engineering and supply of the turnkey solutions, from design to installation, up to the maintenance of plant and equipment.

The company offers its great expertise in the field of Energy, Oil & Gas, Automotive, Chemical, Safety and tertiary sector.



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