

SWISSPHONE

Emergency call system for lone workers

Realises rapid assistance

www.swissphone.com

Emergency call system enables workers to work alone

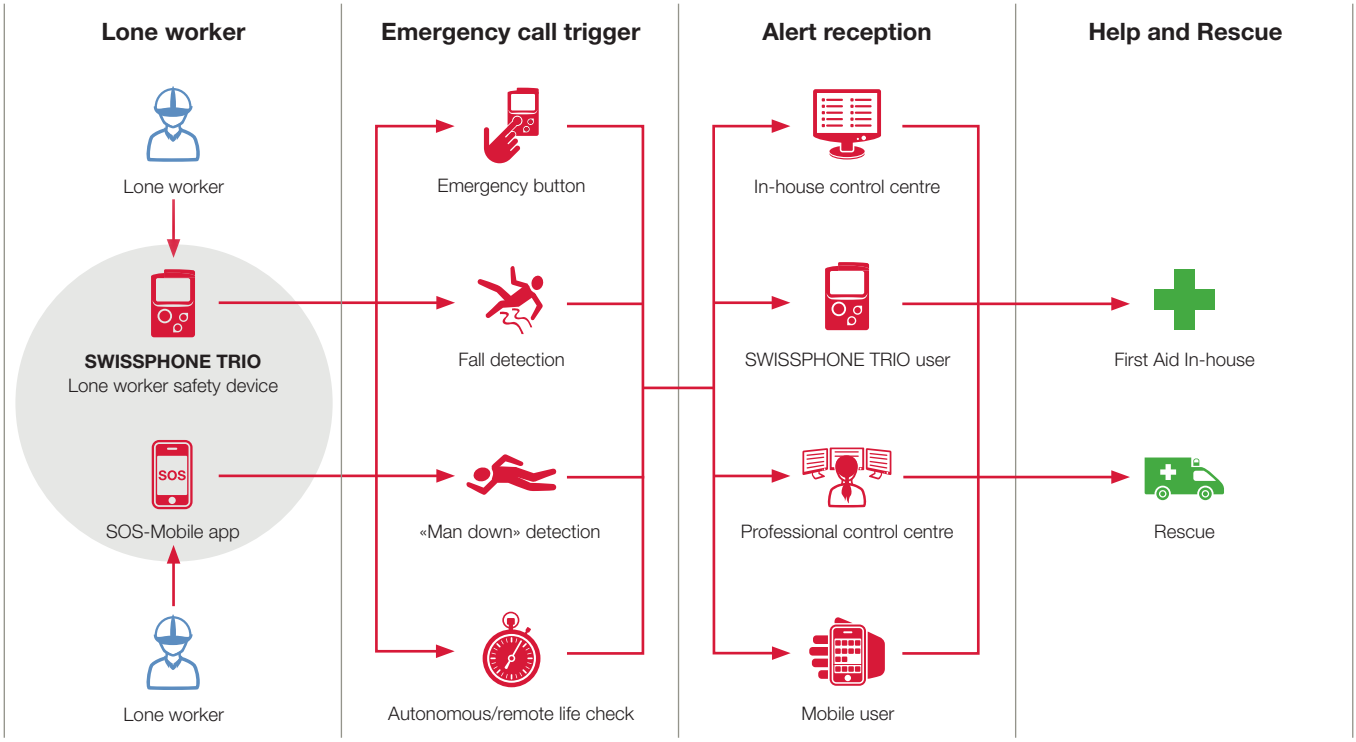
YOUR NEEDS

As an employer, you are required by law to ensure the safety of lone workers. While some dangerous jobs can be performed by a single person, employers must guarantee rapid response to an emergency. This means that you as an employer need a system that alerts you when a lone worker needs help.

OUR SOLUTION

The Swissphone SOS-Solution is able to detect emergency situations like a fall or no movement. If an injured lone worker is still capable, he can call for help by pressing the emergency button of his emergency device (SWISSPHONE TRIO or smartphone). If the motion sensor detects no movement for a specified period of time or if a fall is detected, it will trigger an alarm. At the same time, an audible alarm (siren) activates for sound localisation. The web-based SOS-Portal supports the alerting by displaying a predefined emergency plan. Location information helps the intervention crew to get to the incident quickly.

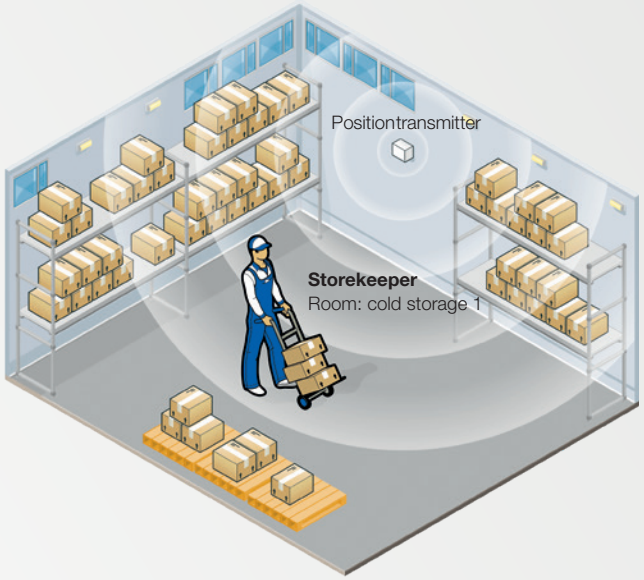
Alarm process Swissphone SOS-Solution



Surveillance and immediate help in case of an emergency:

- Emergency button for manual alerting
- Continuous monitoring: automatic alerting when no movement (man down) or a fall is detected (fall detection).
- Periodic monitoring: an alarm will be triggered when a predetermined period of time elapses without confirmation (Remote life check and auto life check)
- Indoor and outdoor localisation of an emergency





Solution benefits

Rapid response
The following options are available to ensure rapid assistance:

- Emergency calls will be processed by a continuously staffed control centre.
- In-house security responds to emergency calls.
- Co-workers nearby will be notified of the emergency call via app, voice alerting, text message or by paging.

Emergency call transmission via mobile network
Emergency calls are transmitted over the mobile network. Repeaters are used to broaden the reception area if necessary, in a cellar. Due to the life check functionality, a lone worker can be monitored even in areas without mobile network coverage. This life check is either made automatically by the SOS-Portal, where the loss of communication triggers a predefined time out counter. An alarm is generated after counter expiration on the SOS-Portal and forwarded according the settings. The life check can also be triggered manually.

Localisation indoor and outdoor
Information about the exact location of an injured person is the key for rapid response. Outdoor localisation is done by GPS. For indoor localisation SOS-Beacons (working with Bluetooth Low Energy) provide accurate localisation data.

Operation principle of the SOS-Beacon position transmitters
The SOS-Beacon transmitters are placed in buildings, tunnels and factories. Position information are transmitted regularly to the SWISSPHONE TRIO or smartphone running the SOS-Mobile app. In case of an emergency the latest position received from a position transmitter will be sent to the control centre to pinpoint the person seeking help. It is also possible to trace the path of the person who initiated an emergency call.

Legal principles

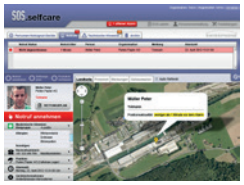
The following organisations and institutions have created regulations and recommendations for lone workers:

- Deutsche Gesetzliche Unfallversicherung (DGUV)
- Schweizerische Unfallversicherungsanstalt (SUVA)
- Italian law decree 81 from 2018
- British standard BS8484:2016

In these regulations and recommendations, a person is considered to be a lone worker, when immediate help cannot be guaranteed in case of an accident or emergency because he/she is out of sight from co-workers. Emergency call systems enable lone workers to work in potentially risky environments.

DGUV = German legal accident insurance
SUVA = Swiss accident insurance institution

Components



SOS-Portal – Professional emergency system
- Web-based (=platform independent) emergency call system
- No hardware or software installation
- No maintenance by operator required
- Highly redundant cloud-based safety solution
- Redundancy for maximum availability
- Automatic event protocolling for seamless traceability
- Optional location features
- Continuously staffed control centre (optional)



SOS-Mobile App
- Easy-to-use emergency application for smartphones
- SOS-Button
- Man down detection, life check



SWISSPHONE TRIO lone worker safety device
- Manual emergency button
- Automatic emergency call (fall detection, man down detection, autonomous life check, remote life check in case of connection loss)
- False alert prevention: emergency button protection, pre-alert
- Localisation (outdoor: GPS, indoor: position transmitter)
- Emergency call transmission via mobile network (date and/or text message)



Rugged smartphones from iSafe and ecom (ATEX zone 1 and 2)
- Ruggedised
- IP68 – Dust proof, waterproof
- Man down detection: 3-axis accelerometer



SOS-Beacon for inhouse localisation
- Based on Bluetooth Low Energy
- Long battery life cycle
- Small form factor 43 x 43 x 19 mm



SOS-Button
- Dedicated alarm button for the SOS-Mobile app or SOS-Gateway
- Bluetooth Low Energy
- Perfect for dedicated alerting, silent alarm, amok
- Localisation enabled with SOS-Gateway



SOS-Gateway (optional)
- Enlarging mobile network coverage
- Frequency bands: GSM900 / GSM1800 / UMTS
- Simple installation



I.SEARCH alarm server (optional)
Local paging system:
- Alerting of on-site personnel and fire brigades
- Alerting in case of machine failure
- IT monitoring

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EN 03/2019 0342421 V11 WEC Information is provided subject to technical modifications, errors and typing errors.