

Indoor positioning

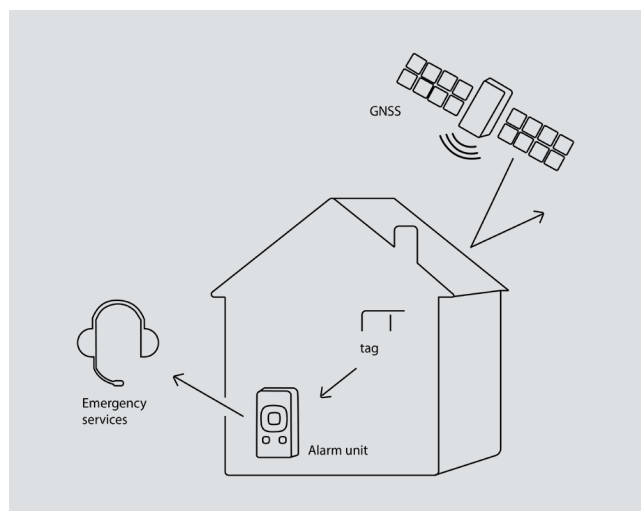
Occasionally we might find ourselves in areas where neither GNSS (GPS, GLONASS etc.) nor GSM signals can reach. It might be a basement, storage room or other areas with thick concrete walls. It is also not rare for considerably risky work to be performed in such environments.

In these cases, many employers' worst fear is that there will occur an accident where employees are harmed. And without neither GSM nor GNSS communication there might not be any means to call for help.

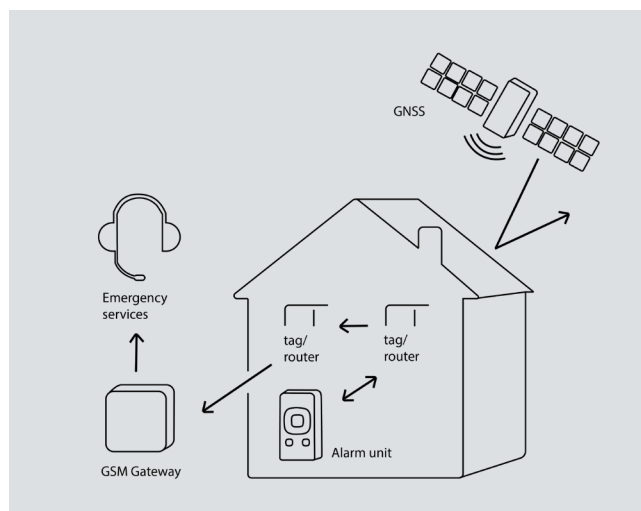
With this in mind, SRT has developed a series of products designed for positioning and communication in indoor environments. The products are based on proven radio communication technologies and the series currently include SRT306i, SRT326i, SRT330i2, SRT334i, SRT334i2 and SRT346.

The backbone of SRT's system for indoor positioning and communication is SRT334i and SRT334i2. SRT334i is used for positioning as it provides position information to alarm devices within its vicinity. SRT334i2 is used for both positioning and communication. By strategically placing a series of SRT334i2 so that they form a chain, they together create a single network where each SRT334i2 is in direct or indirect contact with each other. When there is an emergency situation, the alarm message is transmitted through the network, until it reaches its destination. The alarm message can be conveyed to the GSM network but also to other alarm devices within the local network.

In cases where GSM coverage is not available, the indoor environment can be equipped with the alarm receiver SRT330i2 which can act both as alarm receiver and GSM gateway. When an alarm is received via radio communication it is forwarded to the GSM network while the usual alarm procedure is activated as well.



The alarm unit (SRT306i/SRT326i/SRT346) can obtain positioning information indoors where GNSS signals do not reach. The alarm unit receives location information from a tag (SRT334i/SRT334i2) and forward this information to the alarm receiver.



Even in cases where GSM coverage does not exist, the alarm unit can be used. In an emergency situation, the alarm unit receives a position from a tag (SRT334i2) and then uses a chain of routers to carry the message to a relay station which in turn forwards the message to the GSM network or other alarm receivers and alarm devices.