



PROCONTROL

Hi-Call System

Wireless Nurse Call and Patient Tracking

Hi-Call® is a wireless person or object tracking system with RTLS (real-time locating system), using RFID technology. System is ready for two-way communication, and suggested to be used in hospitals, community homes, health care institutions, homes for elderly, etc.

Brief description

When the patient feels bad, gets lost, forgets his location, collapses, it means he needs urgent help.

Pressing the button on his 'bracelet' device he can easily call for help. Wherever the nurse is, she/he will receive the call to her/his own bracelet. The nurse will see, who called and from exactly where. The Nurse Call System is an application of RTLS that goes far beyond the traditional wired technologies and provides the freedom of movement for the patient. RTLS works either as an integrated system embedded into the comprehensive supervising system of the concerned health institute, or it can be independent of it.

Structure

The tracking part of the system consists of a transponder attached to a person or fitted on an object and static routers fixed in the building. The number of the routers depends on the structure of the building and the accuracy needed. One router may cover 450-300 m².

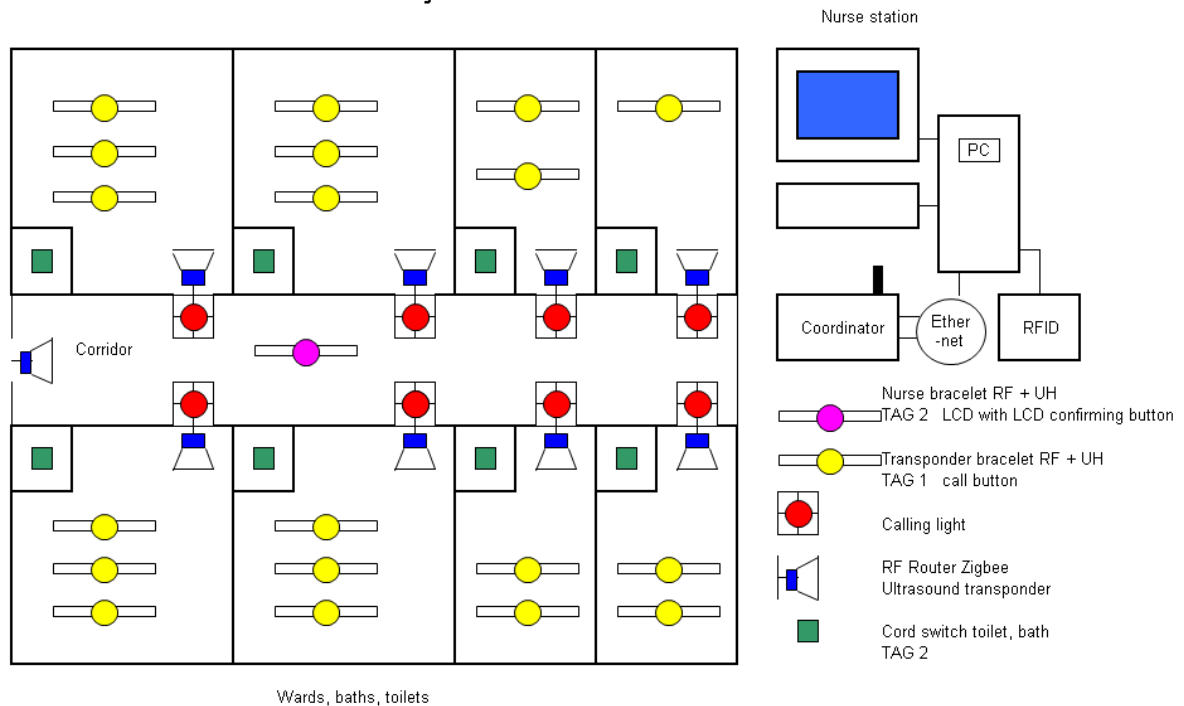
The routers make a wireless network and connect to the existing Ethernet or Wi-Fi network of the building by one IP coordinator per 10-20 routers.

There is one or more PC workstation in the network where the Hi-Call software runs in Windows environment, doing monitoring, management and evaluation.

The software has open structure, thus expandable, special modules can be added to it, like emergency call, health care, GPS locating, etc.

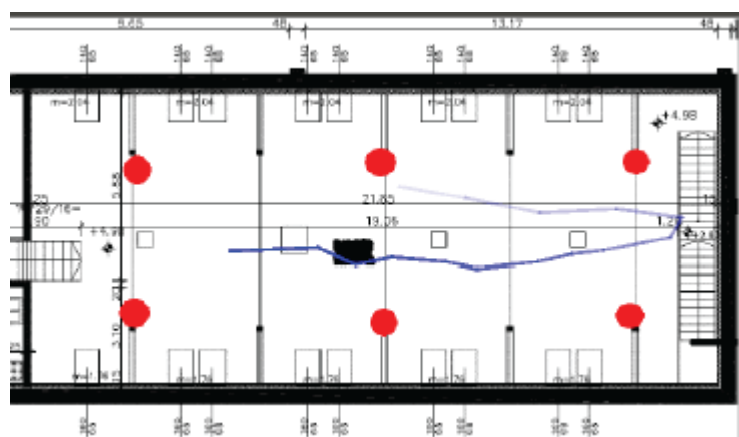


Wireless nurse call system



Operation

The personal transponders are registered in the system and personalized; data are stored in a server. On the badge-type transponders photo, name, position can be displayed. At registration persons, objects can be grouped e.g. like nurses, doctors, guards, cleaners and contributors. The object locating transponders are registered in the system at installation, like groundworks machines, cleaning machines, etc. The specific groups or persons have their own allowed area to move, when they leave this assigned territory the system alerts and logs. Unauthorized movements can be documented or even prevented, and the allotted routes can be checked, supervised. The system can monitor 128 transponders at the same time, which can be optionally expanded. Transponder can be worn as a wrist watch or as a badge by the tracked persons; the localization centre always sees who is where at the given time. The actual location is displayed on the screen and so is the path they have taken. Data are logged and can be replayed for a specific time frame.



Technical specifications

- Technical parameters of the RTLS user device
 - Rated voltage, charger 230V AC
 - Maximum charging current 70mA
 - Rated voltage, battery 3,7V
 - Rated capacity, battery 350mAh
 - Frequency range 2,40 - 2,48 GHz
 - Transmit power 3 dB
 - Maximum range (PER <2%) 20m
- Technical parameters of the coordinator device
 - Rated voltage, charger 230V AC
 - Maximum charging current 150mA
 - Rated voltage, battery (optional) 3,7V
 - Rated capacity, battery 550mAh
 - Frequency range 2,40 - 2,48 GHz
 - Maximum transmit power 3 dB
 - Maximum range (PER <2%) >100m
 - Ultrasonic frequency (optional) 21 kHz
- Technical parameters of the routers
 - Rated voltage, charger 230V AC
 - Maximum charging current 70mA
 - Rated voltage, battery (optional) 3,7V
 - Rated capacity, battery 550mAh
 - Frequency range 2,40 - 2,48 GHz
 - Maximum range (PER <2%) 100m
 - Ultrasonic frequency (optional) 21 kHz



Versions

- Childcare – transponders at children can be displayed separately as well at the information desk. Transponder can be designed specially, e.g. put in a stuffed toy, like teddy bear, and attached to the child with an undetachable strap.
- Hi-Call® GSMK10 is an emergency bracelet, which is always at hand for elderly people who live alone and may need help. By pressing a button one can easily start a phone call to the pre-programmed phone numbers.

