

Application of IoT to the indoor localization system

*Fondazione
"Opere Pie Riunite Giovan Battista Rubini"*

CUSTOMER

Fondazione "Opere Pie Riunite G.B. Rubini" ONLUS

SECTOR

Healthcare

NO. OF EMPLOYEES

Around 40 employees

TURNOVER

2 million €

WEBSITE

www.fondazionerubini.org

ZUCCHETTI'S SOLUTION:

Hardware:

Indoor Positioning, which includes

BLE tag

BLE readers

Terminali/controller

Software:

DIGITAL MAINT 4.0. of ECSM

PARTNER

ECSM

ECSM, Zucchetti Axess partner, provides a wide range of Cloud services. Specifically, the company is specialised in supplying and managing IT components for the control of the Core Business processes, both for the public and private sectors.

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As of 1988, "Opere Pie Riunite G. B. Rubini" provides healthcare, socialisation assistance, recreational and rehabilitation services to people in difficulty.

In order to perform its activities, the foundation has created a Nursing Home, placed within a multipurpose social centre together with multi-specialist clinics, a theatre, a museum and a self-service canteen. The main purpose of the facility is to ensure the well-being of the person and to provide various healthcare interventions meant to maintain and strengthen the functional, motor, cognitive and relational abilities necessary for the day-to-day life of the guests.

In order to favour the correct integration within the social fabric, the Nursing home developed many projects among which: craftsman and sensory workshops, interactions with people of different generations and pet therapy sessions.

With its 45 beds accredited by the Region of Lombardy, the retirement home accommodates, temporarily and permanently, both dependent elderly people, i.e. with severe deficiencies that prevent them from fulfilling daily activities, and partially dependent people, i.e. those who can perform their basic tasks.



CUSTOMER'S NEEDS

Nursing homes are facilities dedicated to elderly people who cannot live in their home due to psychophysical limitations: therefore, it is fundamental to supervise patients 24/7, assisting them in everything they do.

The purpose of the permanent assistance is to protect the elderly from possible dangers, such as incidents, getting lost inside or outside the facility or the intrusion in areas with limited access or dangerous areas.

Another risk factor is the flow of persons within the facility that, for safety measures, is monitored constantly.

For these reasons, "G. B. Rubini" nursing home needed an innovative solution capable of guaranteeing the complete safety of its guests, relatives, volunteers, suppliers and staff.

Therefore, a system capable of tracking and recording accesses, paths, positions and residence time of all the people passing through the facility was required. Moreover, a system allowing easy and quick checking of the acquired data, with total respect for privacy, was necessary for maximum control purposes.

ACCOMPLISHED PROJECT

An IoT based system has been created, which combines the flexibility and versatility of BLE (Bluetooth Low Energy) communication technology with the practicality of a pocket tag.

We refer to the DIGITAL MAINT 4.0 software of ECSM software and to the Indoor Localization devices of Zucchetti Axess (BLE tags, BLE readers, terminals and controllers): a highly innovative duo, which constituted an Indoor Positioning system capable of tracking and registering routes and time spent in each area.

The operation is extremely easy: each user with BLE Tag is automatically recognised by the specific BLE readers placed at the entrance and in different areas of the facility. Besides recognising various identities, the system traces in detail every route and calculates all the residence times, notifying promptly possible unauthorised accesses.

The dashboard, the reporting tool and the Mobile app allow checking the obtained data, at any time.

WHY ZUCCHETTI?

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Manager of the foundation, replies

"We were looking for a complete and highly reliable solution and after some research we found the ideal partners in Zucchetti Axess and ECSM, both in terms of the quality of the technology and the completeness of the solutions, and also in terms of professionalism, competence and shown availability."

