

Comprehensive solution for hospitals: Integration of voice, data, resuscitation alarms and patient management.



Ente Ospedaliero Cantonale

Six hospitals and the central service center in Ticino benefit from an IP-based, integrated telecom solution. The daily communications processes for more than 4,000 employees were simplified significantly, and the mobility level increased. Patient care has been improved and accelerated thanks to a comprehensive emergency escalation system.

The customer

Ente Ospedaliero Cantonale (EOC) plays an important role in the Swiss healthcare system: It is responsible for the public hospitals in the Canton of Ticino that comprise five healthcare entities (cantonal hospitals and clinics) at nine different locations. The organization ensures that the hospitals operate efficiently and supports them with larger investment projects. In doing so, the EOC determines strategies for the future and makes decisions on new technologies. About 38,000 patients with a total of 327,000 inpatient days annually are cared for by more than 4,000 employees who in their daily work depend on the flawless operation of a state-of-the-art communications infrastructure.

The challenge

The hospital phone system was obsolete, the mobile communications system was outdated and the many assorted solutions used across the various hospitals had high operating costs. In addition, the hospitals were not networked with each other, and it was nearly impossible for in-house employees to maintain and service the communications infrastructure.

Now a **networked communications solution** with **integrated applications** was to give care providers first-rate support with patient care. An additional requirement was the upgrade of the **alarm system** and its integration into the telephone network: In the case of an alarm, target persons (care providers/technicians) had to be reachable locally and across locations according to an identical alarm process.

The enhancements were also to provide a **more pleasant experience for the patients**: simplified check-in and check-out processes, phone card vending machines with fee tracking, user-friendly phones with extensive features and increased security provided by the new alarm system.

Not only did we have to meet the various requirements of the six hospitals, but we also had to find the very best solutions from the perspective of the organization's management.

Working with Business Sunrise*

Simone Consonni, Engineer with responsibility for medical-technical services and Project Manager, EOC

"The EOC is not a static organization. Changes and improvements are an integral part of our everyday life at work. In this frequently stressful environment, we value Business Sunrise* as a partner who with its technical know-how and experience is continuously able to adapt its solutions to the changing needs of our various target groups."

Working with EOC

Daniele Menotti, Director Ticino Region, Business Sunrise*

"The seamless integration of the various systems for telephony, alarms and administration, all from different manufacturers, was particularly challenging in the implementation of this complex hospital solution. Thanks to EOC's great cooperation and availability, we were able to design an efficient and best possible solution for each of the hospitals."

The solution

The Business Sunrise offer won the EOC's public bidding process, not only for technical reasons (functionality and highest level of redundancy), but also due to its future financial investment security. In addition to designing the solution, Business Sunrise* also took on the implementation, maintenance and management of this three-phase project in Ticino:

- Installation of new infrastructure
- Integration of existing systems into the new solution
- VoIP networking of all locations based on the EOC's own IP backbone

The Alcatel-Lucent OmniPCX Enterprise Voice server, with its integrated applications that take into account the hospitals' high security and availability requirements, forms the core of the new solution. During the rollout of the six systems for about 4,000 employees, 24/7 reachability had the highest priority, and the EOC emphasized the importance of seamless communication without any interruptions.

In addition to the hospital solution from Alcatel-Lucent, a flexible, high-performance third-party business management software was installed that also manages the vending machines. The patients benefit from transparent, easy-to-understand billing and rapid check-out processes, and the personnel has fewer administrative tasks to deal with. In addition, all of the businesses within the EOC are now using the new Omnivista system management from Alcatel-Lucent, leading to additional efficiency gains in the networked hospitals.

Alarms: Security for patients – mobility for personnel

In the medical and technical departments, the alarm system from Audio-Text Telecom AG, a long-term Business Sunrise* partner, is an important component of the complete solution and was successfully integrated into the OmniPCX Enterprise telephone infrastructure. The DECT terminals ensure the emergency personnel's mobility and generate audible and visual alarms through their displays. The alarm procedures and escalation processes were customized to fit the hospitals' needs. Here is an example: To perform CPR, an emergency response team consisting of at least one representative from all required areas (doctor, anesthesiologist and surgeon) must be present. If an individual department cannot be reached despite parallel alarms, an escalation is staged for this department until the emergency response team is complete.

The technical aspects of the building management, fire alarm and light call systems and further third-party systems were integrated into the central alarm management server.

Internal and external benefits

Ticino hospital employees as well as patients benefit from the new Business Sunrise* communication solution. A higher level of mobility and lower administrative costs on the one hand, and more amenities, quicker services and increased security on the other hand ensure that both employees and patients continue to be satisfied.

* Previously called NextiraOne Schweiz GmbH; Business Sunrise since January 2012.

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If you require any further information, just give us a call.