

Hospital d'Igualada Sets New Standards in Healthcare Excellence

Executive Summary

CUSTOMER NAME

Hospital d'Igualada,
Government of Catalonia, Spain

INDUSTRY

Public Healthcare

BUSINESS CHALLENGE

Meet demands for healthcare services due to an increase in an aging population, annual visitors, and immigrants

SOLUTION

Connected healthcare environment based on a Cisco Medical-Grade Network delivered over a converged, wireless and intelligent IP infrastructure

BUSINESS RESULTS

- Created instant access to critical patient data—anytime, anyplace
- Set new standards in patient care and hospital services using digital processes and e-health solutions
- Improved collaboration and use of hospital resources via Cisco Unified Communications solutions and other technologies
- Increased number of patients treated; reduced administrative work for doctors and in-patient hospital stays

The Government of Catalonia, Spain is realizing its vision for a connected hospital. Hospital d'Igualada, as the most recent hospital opened in Catalonia, is leading the way, creating a blueprint that will transform how the hospital uses intelligent technology to increase productivity, reduce costs, and improve medical services to citizens. The connected hospital is just the start of a vision that includes integrating digital technology and collaborating with other healthcare organizations.

Business Challenges

Catalonia, an autonomous community of Spain divided into four provinces, is home to seven million Spanish citizens, an increasing number of immigrants, and 12 million visitors who flock every year to its sandy beaches and cultural heritage. A thriving tourism industry and an aging population, where the 80-year average life expectancy is one of the highest in the world, have led to increased demand for healthcare services. The largest section of the population is between the ages of 25 and 50. As this group grows older, the need for healthcare is likely to accelerate, placing greater demands on local hospitals for medical treatment and patient care.

In response, the government of Catalonia developed an innovative and forward-looking strategy based on a connected hospital model to meet the future needs of the region. The new Hospital d'Igualada is the first phase of the strategy, and sets the stage for being a center of excellence for medical services. Located 30 miles from Barcelona, the hospital works in partnership with neighboring healthcare facilities, such as the Residencia Vilaseca, St. Jordi's Alzheimer Hospital, and apartments with facilities for elderly people, to provide efficient and effective clinical, nonclinical, and outreach services.



“The new building offered us a blank canvas to be a reference for other hospitals in Catalonia,” says Carles Gausachs, CEO of Hospital d’Igualada. “We wanted to take the best that technology offers to transform how things are typically done in a hospital and apply it in a way that would deliver the maximum benefits possible to medical staff, patients, visitors, and our partners.”

Solutions

The first step of phase one was to identify best practices. Hospital d’Igualada sought the help of the [Cisco® Internet Business Solutions Group \(IBSG\)](#), which shared best practices and results gained from similar transformation projects, as well as lessons learned. These insights provided the basis for a set of objectives, including:

- Improve medical services to patients
- Increase patient satisfaction, through both in-person and remote/virtual visits
- Improve efficiency and productivity of doctors and administrative staff
- Provide better access to applications and services—anytime, anywhere
- Comply with confidentiality and information security requirements
- Attract the best doctors and specialists in the area
- Improve real estate efficiency through increased security services and reductions in maintenance and energy consumption costs
- Improve collaboration and communication with partners (local, regional, national, and international healthcare providers)

Because the transformation would entail great change, a series of workshops were conducted to seek the views of department heads and their representatives. The workshops highlighted requirements in four specific areas:

- **Clinical services and patient care**—the implementation of electronic patient records with complete patient history (such as registration, illnesses, prescriptions, physicians, and test results). Requirements also include bedside prescription of medicines and a system for follow-ups, online patient registration, and digital imaging including picture archiving systems and electronic radiology.
- **Knowledge management and learning**—collaboration platforms (such as videoconferencing, document sharing, and e-mail) to facilitate learning and knowledge sharing among practitioners.

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Carles Gausachs, CEO
Hospital d’Igualada

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Albert Molas Barberá, CIO
Hospital d'Igualada

- **Internal efficiency and administration**—Cisco Unified Communications solutions for accessing calls, calendars, data, and e-mail anywhere, anytime, and from any wired or wireless device. Implementing nursing applications to improve the mobility of care givers. Digitizing business processes and creating an employee portal with self-service functionality to complete tasks such as expenses and job applications.
- **Intelligent real estate**—new technologies, such as RFID, for asset tracking and management of hospital equipment.

The consultative process covered all functional areas of responsibility including surgery, pediatrics, critical care, imaging, and pharmacy. “It’s not just about putting technology in a hospital—it’s about managing change and ensuring you take everyone with you on each step of the journey,” says Albert Molas Barberá, Chief Information Officer of Hospital d'Igualada. “IBSG provided us with a framework to build commitment and maximize both the size of the opportunity and our chances of success.”

Having defined the components of its new connected healthcare model, the hospital worked with the local Cisco team to develop and implement a network architecture, based on a [Cisco Medical-Grade Network](#) solution. The Cisco Medical-Grade Network is a foundation that provides a single information and communications infrastructure to deliver healthcare data over a converged, wireless and intelligent IP framework anywhere, anytime, and to any device. Key characteristics of the network include simplified management and a secure and resilient infrastructure that self-monitors, self-defends, and self-repairs so that critical applications and data remain safe and accessible at all times.

Business Results

Hospital d'Igualada has connected all stakeholders in the healthcare system to a single information and communications infrastructure, defining future best practices for healthcare in the region and beyond. The network currently supports mission-critical applications for operating theaters, radiology, emergency-unit services, and enterprise resource planning. Improved collaboration between medical teams is supported by 500 IP phones and 150 wireless phones. Videoconferencing enables external consultants, trainees, and other hospitals to view surgeries in real time.

This showcase of digital transformation and e-health solutions is expected to set new standards in patient handling and recovery times, and in the delivery of hospital services. The hospital expects to reduce by more than 30 percent the time doctors and nurses spend each day searching for clinical information as a result of streamlined operations and access to digital information. Better integration of processes and communications, combined with efficient and flexible workflow, will also reduce the time doctors spend on administration tasks.

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Centralized tracking and management ensures that equipment and other commonly used resources can be shared by medical staff easily. This is expected to reduce the time patients spend in the hospital by 15 percent by helping speed up the processing of results, eliminating the need for repeat treatments (such as X-rays), and enabling faster diagnosis.

Next Steps

The initial phase of the connected hospital empowers the hospitals' medical staff to excel at their work. Plans are now underway to connect pathology and laboratory departments to the network. The hospital is also exploring opportunities for digital integration with other health organizations.

“Cisco has played a significant role in helping us to break new ground and realize our vision to create a hospital of the future,” says Gausachs. “Not only will this benefit citizens, we believe it will also provide an important reference point for implementing change in the way healthcare is delivered throughout the region.”

More Information

The Cisco Internet Business Solutions Group (IBSG), the global strategic consulting arm of Cisco, helps Global Fortune 500 companies and public organizations transform the way they do business—first by designing innovative business processes, and then by integrating advanced technologies into visionary roadmaps that improve customer experience and revenue growth.

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