

Niguarda creates hospital of the future, setting new standards in the quality and delivery of healthcare



Customer: Azienda Ospedaliera – Ospedale Niguarda Ca' Granda

Industry: Healthcare



Challenge:

- Advance the hospital's position as a centre of excellence and innovation
- Improve patient care, workflow efficiency and collaborative capabilities – on campus and in the community

Solution:

- Connected healthcare environment, based on a Cisco® medical-grade network design and delivered over a converged, wireless, intelligent IP infrastructure
- Cisco Capital finance solution to lower risk and accelerate realisation of benefits

Results:

- Medical staff have increased access to critical information, people and knowledge on the move
- Ability to see, diagnose and treat more patients – earlier and faster
- Potential 15-20 per cent savings from productivity gains, clinical efficiency and better patient outcomes
- Faster payback within three years, improved cash flow management and less risk



Niguarda Cà Granda

Niguarda has transformed the hospital environment by implementing a vision for connected healthcare that builds an intelligent IP network around the needs of patients and caregivers. Medical staff have ubiquitous access to patient information, while greater process efficiency and better utilization of resources is expected to provide savings of about 15–20 per cent. And, by incorporating finance into the solution, the hospital has accelerated the delivery of these benefits to health professionals and citizens.

Challenge

Azienda Ospedaliera Niguarda Cà Granda (Niguarda Hospital) is one of Italy's biggest general hospitals and a worldwide reference centre for the treatment of many rare diseases. It provides Milan and the wider Lombardy region with a wide range of medical services. These services are delivered through 74 clinical units and over 4,100 carers, of whom 750 are physicians and more than 2,000 are nurses, health technicians, physical therapists or midwives.

Niguarda is considered to be a leading example of innovation within public sector healthcare and prides itself on being an early adopter of technology and using the very latest hi-tech equipment. Like many hospitals however, Niguarda has to make finite budgets and resources stretch, while constantly finding new ways to improve services for citizens. The healthcare sector in Italy is also experiencing intensified competition from private companies.

Niguarda's response was to create a bold and far-reaching, technology-enabled strategy to transform the delivery of medical services, clinical effectiveness and the quality of patient care.

"The first stage of our vision was to focus on optimising the hospital campus. Next, by building on this foundation and introducing emerging technologies, we wanted to extend services to all parts of the community, including previously remote, hard-to-reach areas," says Gianni Origgi, Chief Information Officer for Niguarda Hospital.

Solution

As part of a major modernisation and IT refresh programme, Niguarda selected Cisco to help it to develop a collaborative Connected Health community capable of enabling:

- Increased caregiver teamwork and productivity to meet the challenges of an aging population and an increase in chronic disease
- Better patient experiences by delivering increasingly sophisticated and costly treatments more efficiently and in new ways
- Patient-centric care that is safe, effective and efficient, emphasising prevention and health, rather than dealing only with illness.

"The project had very aggressive timescales and involved building two new hospital units. With Cisco we had a partner that we could trust to deliver, on time, and within budget. They were also able to draw on best practices and results gained from similar transformation projects, as well as lessons learned," says Stefano Vitiello, Director for Purchasing at Niguarda Hospital.

The new environment embodies the core principles of a Cisco® medical-grade network, which forms a single platform connecting over 70 buildings and 200 clinics. The network supports mobility, unified communications and various medical applications, including picture archiving and communication systems, electronic medical records, and e-prescriptions. Niguarda has also become the first hospital in Italy to trial Cisco HealthPresence, a proven solution for remote diagnostics and preventative care using high-definition video, advanced audio and network-transmitted medical data.

Financing was another important consideration. "We wanted to be able to implement a complete solution that would make a difference from day one, rather than a series of discreet projects that would only deliver benefits incrementally over time," says Origgi. "Each part of the solution benefits the others, so it would have been impossible to realise the full potential using a piecemeal approach."

Following a public tender, Niguarda was able to spread project costs over 60 months with a Cisco Capital financial solution. At the end of the five-year term, title ownership of all assets will transfer over to the hospital in strict accordance with European procurement guidelines.

"Combining Cisco's proven Connected Health architectures with Cisco Capital's flexible commercial terms avoided any delays in opening the new hospital units and accelerated the delivery of benefits to medical professionals and citizens. As a result, we are on course to achieve our target of improving patient experiences."

Gianni Origgi
Chief Information Officer, Niguarda Hospital



Results

The transformation has been spectacular. Niguarda expects to reduce by more than 18 per cent the time doctors and nurses spend each day searching for clinical information as a result of streamlined operations and access to digital information. In an instant they can now view electronic patient records – whether

they are at their workstation, in the ward, or in theatre – with complete patient histories, such as registration, illnesses, prescriptions, physicians and test results. These improvements are expected to play a crucial role in improving patient outcomes by reducing waiting, diagnosis and treatment times.

Better integration of processes and communications, combined with efficient and flexible workflow, will also reduce the time doctors spend on administration tasks. “Our professionals will be much more effective thanks to the use of laptops over the wireless network, combined with gigabit connectivity,” says Origgi. “They will be able to access clinical information at the bedside and prescribe medicines, search and register information in the electronic health record, as well as fetch and analyse digital X-ray images in seconds.”

Introducing collaborative platforms, such as Cisco HealthPresence, means that patients who may be hundreds of miles away will in the future be able to interact with doctors within a clinical setting. It is also much easier for Niguarda to facilitate learning and knowledge sharing among practitioners and partner and life science organisations.

By financing with Cisco Capital, costs can be more closely matched with operating expense savings. As a result, Niguarda expects to see a faster payback within three years. Avoiding a large upfront capital investment has also helped to reduce risk, from both a financial and technology obsolescence perspective, while at the same time optimising cash flow management.

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Next Steps

The initial phase of the connected hospital empowers the hospitals’ medical staff to excel at their work. The next stage of Niguarda’s forward-looking strategy is to trial radio frequency identification (RFID) solutions, enabling centralised tracking and management of equipment and other commonly used resources. The solution will help the hospital to reduce the time spent looking for assets and duplicating equipment that has gone missing.

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