

Case Study

Industry: Healthcare

Belfast City Hospital

Project: Network infrastructure

Major Challenge: Robust, reliable, future-proof network



The background.

Belfast City Hospital is a leading university teaching hospital that began as a workhouse in 1841. Most of its old buildings have been replaced by a distinctive yellow-block tower, which has become a recognizable part of the Belfast skyline since its opening in 1986.

Located on a 32-acre campus, the hospital is focused on the development of regional cancer and renal services, as well as a number of other important regional specialties. It's also internationally known for its comprehensive cancer research program and is part of a unique transatlantic partnership that includes the National Cancer Institute of the United States and both Northern Ireland and the Republic of Ireland.

To support its extensive operations and future growth, the hospital initiated a network infrastructure project for its main cancer research and treatment center in Northern Ireland.

The requirements.

Because the network would be used to administer several different networks, including those used in patient treatment areas, it was vital that the hospital be able to monitor its physical status at any given time with 100% accuracy and minimal downtime.

The network infrastructure had to offer:

- Management of risk—to minimize the risk of network faults and failures and to maximize uptime and reliability.
- Resiliency—to maximize resistance to fault and failure, and be able to recover in the shortest possible time.
- A futureproof design—to not only satisfy initial demand but also accommodate future technologies.

- Quality of performance—to minimize error rates and the need to retransmit lost or corrupted data.
- Flexibility—to maximize the network's ability to support a wide range of operational technologies and solutions.
- Network management—to maximize the ability to manage the network proactively.

The solution.

Belfast City Hospital had an existing relationship with Black Box and chose us for the project because of our ability to supply and install the complete network system.

Black Box proposed a solution that addressed the main challenges posed by the hospital. The network would allow for future expansion and the ability to monitor the real-time status of the physical network with complete accuracy.

The solution consisted of a CAT6 intelligent infrastructure management cabling system, as well as iTRACS software to give the hospital the tools to monitor and administer all moves, adds, and changes on the network.

The project began with the connecting of the facility's new Oncology Centre to the main hospital site using a blown fiber optic solution. Internally, the building was flood-wired over six floors with CAT6 cable running to four outlet points at each workstation. The cables were then terminated in 42U open patching frames using a double presentation of intelligent patch panels, which also connected to Cisco® switches and, in turn, to Intelligent Infrastructure Management System (IIMS) analyzers.

In the end, Black Box provided Belfast City Hospital with a high-performing network that'll serve it now—and later.

"Considering the scale of the project and the fact that it was completed without encountering any real issues or problems, in my mind, speaks for itself. Professional, innovative, reliable, experts in their field, excellent teamwork—all describe Black Box as a whole."

Keren Foster, Systems Specialist, ICT Department, Belfast City Hospital



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