

Focused teamwork delivers state-of-the-art communications system to the new Auckland City Hospital

Overview

■ Challenge

To deliver quality communications services to staff and patients of Auckland's new hospital, a major challenge being the sheer size and scope of the installation.

■ Solution

IBM provided a state-of-the-art Siemon cabling system, installed over two years by a team of 20-30 technicians led by a project manager. The solution delivered high quality voice and data communications with the capacity to upgrade infrastructure and services well into the future.

■ Why IBM

The hospital now has a leading edge solution, allowing administrative staff, medical staff and patients to access data and voice communications, no matter where they are on campus. From a business point of view, the scalability of the solution will provide an ongoing return on investment and the entire implementation is covered by a 20-year extensive warranty.



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Warren Hollings,
Fletcher Construction project director

Auckland's new hospital is one of the largest and most technically advanced building projects ever undertaken in New Zealand. The hospital campus is the equivalent size of 16 rugby fields, comprising 3,500 rooms and providing 710 acute beds.

For IBM, the scope of the installation was vast - involving 10,000 jack points, 92,000 meters of cable, 20

communication cabinets, 13 hub rooms, wireless access points and a public address system with over 900 speakers. IBM also installed a master antenna system delivering signal to 1,000 television sets.

Teamwork the key to successful outcome

According to IBM account manager, Keith Handley, close cooperation with Fletcher Construction and hospital network manager, John Irving, was critical to the success of the project. “John was very passionate about how he wanted the network to end up,” said Keith Handley. “He wanted a solution that could grow with the hospital's requirements long term, while at the same time optimising the funds spent on the project. So there was significant liaison between John and our consultant to make sure design principles were enforced and the project stayed on track with timelines and budgets.”

Likening the undertaking to assembling a jumbo jet, "it's huge in the first instance and very complex in the second," Fletcher Construction project director, Warren Hollings, agreed the team approach delivered results. "Good teamwork is the difference between success and failure," he said. "A good team can produce results well beyond the sum value of the individuals involved. IBM's on-site team of installers was 20 - 30 strong during the two year construction period, and was led by a full-time project manager."

Looking back at the completed project, Hollings is more convinced than ever about the importance of assembling the right people from the outset. "You need key people that are experienced in this type of project. You can't just put a group together and expect things to run smoothly." The project manager position is critical to the outcome and has to drive everything - making sure people are doing what they're supposed to - meeting deadlines and staying focused right to the end. "On a job of this size, it can happen that everyone is keen and excited at the beginning, but they get about halfway through and lose interest. So, a good project manager has to be a skilled motivator, as well," said Hollings.

The new hospital's system was planned down to the last jack point, and efficiently managing all the implementation documentation was another key to the success of the project. "The paperwork generated was phenomenal," said Handley. "There was a huge flow of it everyday that we had to manage. Specifically, working with the other subcontractors - the electrical, the plumbing, the air conditioning and so on - we had to record when and where we were

putting our services and there was a lot of meetings and coordination with the other trades. This aspect of the project was very challenging, particularly at the start."

A unique environment

Working on a hospital installation provided a set of challenges not found in corporate offices. For one thing, cabling had to be delivered to beds, rather than workstations. "The hospital does have standard office locations," said Handley, "but then there are outlets in the wards and in the bedheads, for example. All connections in the faceplates are RJ45, capable of connecting telephones, computers and intercom. Operating theatres have a large amount of cabling - they even have data outlets in the lights shining down on the operating table - so it's totally different from an office environment."

Future-proofing the project for potential future upgrades was also top of mind for the hospital and IBM. Access via a comprehensive cable system allows future cabling work to be achieved with minimal disruption to staff and patients. "We've allowed a lot of room for expansion on the cable tray," said Handley, "and if there are any failures, there's redundant fibre and copper backbone cabling systems connecting the new building to the main server and PABX rooms. This provides contingency back-up if needed."

And the backup doesn't end there, as Handley explains. "The whole installation is covered by a 20-year warranty that extends to all components, workmanship and applications running over the category 5e cabling system," he said. "If anything goes wrong with it, we'll sort it out."

Benefits of a one vendor solution

IBM provided a state-of-the art Siemon cabling system delivering high quality voice and data services. "In this type of scenario, the customer gets a quality system with all its components from one vendor. The warranty from IBM and Siemon offers a total system warranty."

"Sometimes people put in an outlet from one vendor and they buy cable from someone else and panels from yet another party. In that case they've got a mix and it's difficult to get an overall system warranty. Opting for a one vendor solution was a wise choice," Handley added.

Since securing the contract on the new Auckland City Hospital, the Auckland District Health Board have also awarded IBM the cabling contract for the remainder of the Auckland City Hospital campus.

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