



> ROBUST VOICE AND DATA NETWORK UNDERPINS AN INNOVATIVE WORLD-CLASS LEARNING ENVIRONMENT

NORTEL



Case Study

Accrington & Rossendale College

"The level of network performance that we enjoy is so much better than before. Without the Nortel network, we couldn't even have contemplated some of the things we're doing at the college now."

> **Sylvester During,**
Director of IT and
Facilities, Accrington
& Rossendale College



Customer: Accrington & Rossendale College

Country: UK

Industry: Education

Challenge: To build modern networking technologies into a new state-of-the-art campus, as part of a government-funded £16m renovation project.

Solution: A new Nortel voice and data network within the new campus buildings. This is designed to be highly resilient, giving the college the foundations for an array of innovative communications tools for staff, students and management of the campus buildings themselves.

- Benefits:**
- **An extremely reliable network** – the network has been highly available since day one
 - **Enhanced teaching and learning facilities** – the college can now use innovative network-based learning tools such as streaming video
 - **Intelligent buildings management** – the college is saving time and costs through networked IP CCTV and heating systems. Staff are now investigating an intelligent door access system
 - **A path to cost savings** – through the clever new facilities that run over the converged network, the college can save costs



“Nortel offered us the most cost-effective path to the functionality we wanted. More importantly, the network was designed to offer an excellent level of reliability. Plus the Nortel team had the personal touch, which we were very impressed by.”

› Sylvester During,
Director of IT and
Facilities, Accrington
& Rossendale College

The scenario

The Broad Oak campus at Accrington & Rossendale College is one of the most cutting-edge learning institutions in the UK. Its large, sleek buildings house a wealth of exceptional facilities for school-leavers and adult learners – including hair and beauty salons, a 160-seat theatre, and TV, radio and recording studios.

Such modern facilities are entirely apt for a college whose construction department is recognised as one of the best in the country. Yet to reach this level of excellence, the college had to undergo an extensive programme of refurbishment. This took every aspect of its facilities at the Broad Oak site into account, as Sylvester During, Director of IT and Facilities explains: “Before the refurbishment, many of the buildings hadn’t changed since the 1950s. It was clear these structures could no longer cope with the requirements of our students, not least from a technology perspective,” he says. “For this reason, we decided to knock down many of the old buildings and construct an entirely new campus, with brand new networking technologies built-in.”

The government funding for this project came to a monumental £16m – making it one of the largest investments in the history of the local area. The plan was to create a new build, which would house the latest and greatest in learning facilities, including the best networking technology the college could find. “Out of necessity, our network had evolved over time, making it difficult to manage – not to mention unreliable. We also had a lot of cabling everywhere, and it wasn’t always clear where all of it went!” smiles Sylvester. To offer students, staff and residents new services in the new campus, a reliable new network was fundamental. “It had to have the Quality of Service to carry voice and data,” he adds. “To put a new backbone in place without convergence would have been inconceivable, as it’s the way technology is going.”

To find the best solution, Accrington and Rossendale College held a rigorous tender process involving some of the best-known suppliers in the marketplace. Following extensive assessment, the college chose Nortel. “Nortel offered us the most cost-effective path to the functionality we wanted. More importantly, the network was designed to offer an excellent level of reliability. Plus the Nortel team had the personal touch, which we were very impressed by.”

The solution

In collaboration with its implementation partner Applinet, Nortel worked closely with Accrington and Rossendale College to design a completely new voice and data backbone, built into the fabric of the new buildings. “IT is a primary tool for organisations like ours. Now, for the first time, we had an opportunity to plan our network,” says Sylvester.

Firstly, the college chose a range of Nortel Ethernet switches to form the new data backbone. Those switches at the core of the network were arranged in clusters, to give the college very high levels of resilience and prevent any single point of failure.

Additionally, Nortel delivered its leading IP PBX and a number of IP handsets. This enables the college to make a gradual move to voice over IP, putting its voice calls over the new data network. In the fullness of time, this should offer the

college significant cost savings, not least because Sylvester and his team can consolidate all voice and data traffic over a single set of cabling, vastly reducing network complexity.

Of the new network, Sylvester says: “The new design is a lot more stable, and very resilient. It’s a triangular topology, and this ensures it stays running at all times.”

The results

The network has now been up and running at the college for more than a year. “The level of network performance that we enjoy is so much better than before,” enthuses Sylvester. “Without the Nortel network, we couldn’t even have contemplated some of the things we’re doing at the college now.”

Today, students can easily send large files such as graphics across the network, without impacting network performance in any way. Video can be streamed confidently, which is proving particularly valuable for the cutting-edge media courses that are on offer in the new campus. The college is also trialling voice over IP with some senior staff, who are enjoying clever new functionality – such as the ability to access all voice, email and fax messages from the convenience of one place: their email inboxes.

Moreover, Sylvester is putting in place some cutting-edge tools to help him manage the college buildings more effectively.

Several of the college’s CCTV cameras, for instance, have been changed to IP CCTV, enabling video to be streamed over the new Nortel network. This makes both monitoring of images and management of the cameras far easier, as the output and the devices can be accessed securely from any networked location.

In addition to this, the college has implemented a networked building management system. “This manages the heating systems throughout the entire college, giving us a great deal more flexibility and efficiency,” adds Sylvester. Heating can be programmed to stay at a certain temperature, and will adjust dynamically. The system can also be managed from a single point by Sylvester and his team. “This is boosting our productivity and saving costs,” he adds.

In the future, Sylvester is also considering door access systems that run over the IP network. “All students, staff and visitors to the college could have a card which will allow them to enter certain areas of the college building,” he explains. “This enhances security, ensuring each visitor only has access to authorised areas.”

Indeed, the college plans to put all CCTV cameras over the network in the near future, and to give voice over IP to all 300 users within the next two or three years. Sylvester is very happy with the Nortel network. “With any new technology, the first few months are crucial, and support is very important. Since this system has been up and running, we haven’t needed any direct input from Nortel at all. It just works.”

“We’ve put in place a building management system which intelligently manages the college’s heating. We’re also hoping to convert all CCTV to IP CCTV which will give us centralised control, more functionality, and save costs.”

> Sylvester During,
Director of IT and
Facilities, Accrington
& Rossendale College



“With any new technology, the first few months are crucial, and support is very important. Since this system has been up and running, we haven’t needed any direct input from Nortel at all. It just works.”

> Sylvester During,
Director of IT and
Facilities, Accrington
& Rossendale College

Nortel is a recognised leader in delivering communications capabilities that make the promise of Business Made Simple a reality for our customers. Our next-generation technologies, for both service provider and enterprise networks, support multimedia and business-critical applications. Nortel's technologies are designed to help eliminate today's barriers to efficiency, speed and performance by simplifying networks and connecting people to the information they need, when they need it. Nortel does business in more than 150 countries around the world. For more information, visit Nortel on the Web at www.nortel.com. For the latest Nortel news, visit www.nortel.com/news.

For more information, contact your Nortel representative, or the European Customer Information Centre.

Nortel, the Nortel logo, Nortel Business Made Simple, the Globemark and CallPilot are trademarks of Nortel Networks. All other trademarks are the property of their owners.

Copyright © 2008 Nortel Networks. All rights reserved. Information in this document is subject to change without notice. Nortel assumes no responsibility for any errors that may appear in this document.

NN123967-101608-EMEA

United Kingdom:

Nortel Networks Limited
Maidenhead Office Park, Westacott Way
Maidenhead, Berkshire SL6 3QH UK

European Customer Information Centre:
Telephone: 00 800 8008 9009*
+44 (0) 870 907 9009
*Number accessible from most countries
Email: euroinfo@nortel.com



BUSINESS MADE SIMPLE