

Case Study >

PROJECT OVERVIEW

- Powercat 6A U/FTP solution
- Multicore OM3 Fibre backbone
- 2700 points
- State-of-the-art landmark building in Belfast's Titanic Quarter

Belfast Metropolitan College, Titanic Quarter, Belfast

Belfast Metropolitan College, the largest further and higher education college in Northern Ireland, recently opened its state-of-the-art building located in Belfast's prestigious Titanic Quarter. This large multi-storey building features the latest technology and facilities, all fully supported by a Molex PowerCat™ Category 6A U/FTP copper cabling infrastructure with an OM3 fibre backbone.

Overview

One of Europe's largest and most spectacular waterfront urban regeneration projects is the Titanic Quarter in Belfast, Northern Ireland. It is set to become a major social and business meeting hub with galleries, theatres, parklands and water sports all easily reached from Belfast's city centre. The Titanic Quarter has also recently been chosen as a test site for a new cloud computing system, leading Enterprise Minister Arlene Foster to comment that this will play a major role in helping to position Northern Ireland as a worldwide centre of excellence in cloud computing.

In May 2009 as part of its commitment to developing lives by providing exceptional education and training in Belfast and Northern Ireland, Belfast Metropolitan College broke ground on its new £44 million Titanic Quarter campus. Spread over 22,000m² and covering five floors, this landmark building comprises over 180 classrooms and offices, eight production and training kitchens, four hairdressing and beauty salons, a fitness suite, multiple restaurants and a bar catering to 2500 students. The site, which replaces two former Belfast city centre sites, impressively incorporates industry leading facilities while maximising the availability and scope of Information Technology to support its student base.

The Challenges

Upon design the college stipulated a high quality, high performing and resilient network infrastructure that would support a wide variety of existing applications including audio visual facilities, projection systems and touch screen controls. Additionally, VoIP requirements dictated that the infrastructure needed to ensure voice quality standards, minimise latency and support the interoperability of VoIP applications. For the college to expand and develop its educational facilities in line with student needs, the structured cabling system chosen had to be robust and have the capacity to support future high speed applications without the need for upgrading. Peter O'Reilly, Network Services Manager at the Titanic Quarter campus, confirmed that "The main requirements were for a solid performing network infrastructure to meet the demands of a modern teaching and learning environment. The network had to be capable of supporting a 10GbE backbone and also have the ability to provide 10Gb/s speeds to the desktop in the future. The solution needed to minimise crosstalk and also eliminate the effects of EMI."



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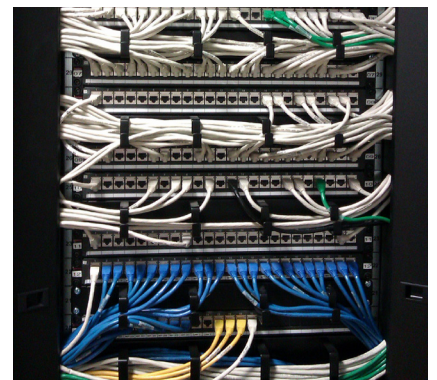
Belfast Metropolitan College, Titanic Quarter, Belfast

The Solution

As a long standing valued Molex Certified Installer with extensive experience on large scale projects across a variety of sectors throughout the UK and Republic of Ireland, InTouch Network Solutions Ltd were the ideal integrator to support the college's infrastructure needs. Working closely with Belfast Metropolitan College, who had specified a Molex solution for the project, InTouch deployed a PowerCat 6A copper cabling system throughout the classrooms, staff rooms and support function areas. "We chose Molex for a number of reasons; primarily for the quality of the cabling products and also for the appeal of the certified installer programme where we could be assured of a high quality cabling install overseen by the manufacturer and the 25 year warranty provided." said Peter O'Reilly, continuing "We have previous experience with Molex solutions and have always been extremely satisfied with the end results. The products have always been high quality and always guarantee high performance and reliability."

Due to the design of this unique structure, Comms rooms containing 6000 patch cords and 130 1U patch panels were placed on each of the five floors, which were then linked with an OM3 fibre optic backbone, with further links between Comms rooms and the main server room. Over 135km of PowerCat 6A U/FTP cabling was installed throughout the building in trunking, with over 2,700 outlets spread across the site. Outlets in the library and student study areas were mounted in desk top pods for ease of access, while additional outlets were mounted at higher levels throughout the building to enable wireless connection access points, a critical part of any modern cabling infrastructure design. Michael Pentland of Intouch Network Solutions Ltd stated "We are very pleased with the quality and performance of the Molex cabling solution. The small diameter of the PowerCat 6A cable made installation in the trunking and back boxes relatively simple, while the product's ease of termination and performance meant that the links gave a PASS result first time, every time."

Beyond infrastructure, the scope of this significant project presented additional challenges to InTouch and other contractors working in the Titanic Quarter. Tight project deadlines, numerous overlapping trades, construction liabilities and strict contractual terms meant that everyone was keen to develop good working practices and relationships to ensure a successful project. Peter O'Reilly commented that "Throughout the project at Titanic Quarter, Intouch Network Solutions were extremely proficient with the Molex install and were also very accommodating when changes were requested. The team were always professional and extremely helpful."



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Conclusion

Following two and half years of intense construction and installation, the doors of the college opened as scheduled on 12th September 2011. Peter O'Reilly concluded "We are extremely pleased with the network infrastructure in the new building and are confident that it will perform as expected for the warranty period and beyond. The Molex solution enables the college to meet the demands of a media rich teaching environment now and for many years to come. We are also so happy with Molex solutions that we are expecting to make Molex network cabling solutions our standard cabling choice for the foreseeable future." This new cutting edge campus secures Belfast Metropolitan College's place as the leading educational provider in Northern Ireland and sets it well on its way to achieving its ultimate mission of becoming 'a centre of learning excellence, committed to transforming lives and contributing to the economic wellbeing of Belfast and Northern Ireland.'



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