

BELDEN

SENDING ALL THE RIGHT SIGNALS

Université du Québec à Montréal

The Université du Québec à Montréal relies on REVConnect® to bring its wireless network and access points to life, supporting tens of thousands of users each day.

UQÀM



Our End-to-End Expertise
Your End-to-End Solution



Customer



Based in Montreal and formed in 1969, Université du Québec à Montréal (UQÀM) is a French-language, public university with international influence. The originality and specific characteristics of its programs, its cutting-edge research often focuses on social concerns. Its creative innovations have been pivotal in building its reputation.

Home to more than 5,300 employees and 39,000 students, today's campus spans 150 acres and 30 buildings. Its 40 departments and schools are dedicated to connecting students with the arts, communication, education, management, politics and law, humanities and sciences.





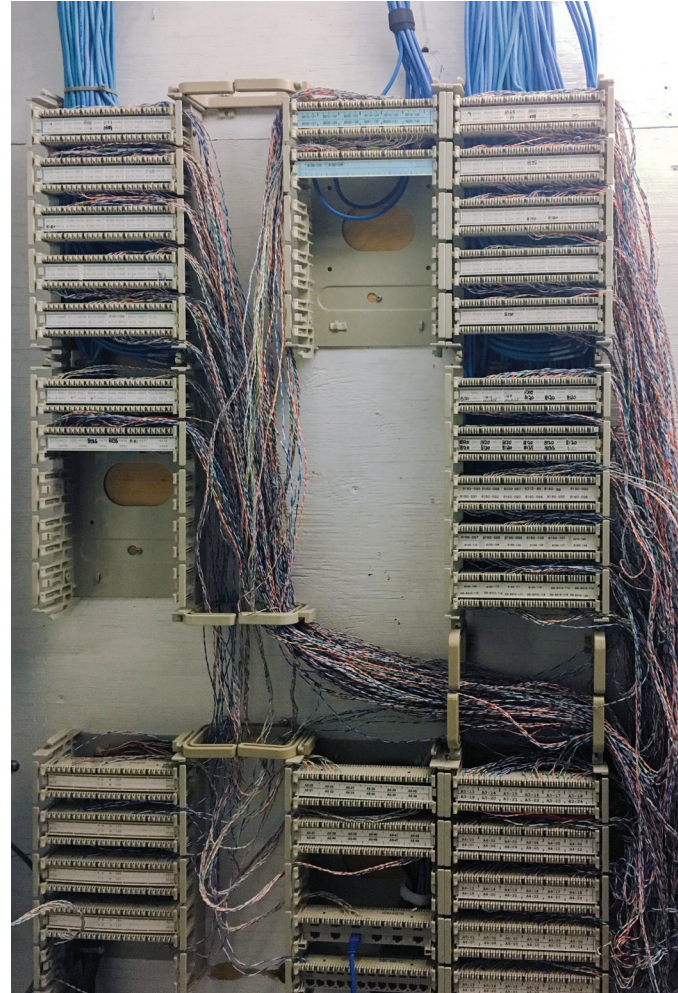
Challenge

To maintain the growing number of wireless connections across campus – and to support tens of thousands of daily users – UQÀM invested in a full-coverage wireless network, including 3,000+ wireless access points for reliable Wi-Fi signals. To get the network up and running quickly while avoiding interruption to students, faculty and staff, it was imperative to adhere to a tight timeline.

Copper cabling was needed to connect the access points to the network and ensure constant connectivity; however, a few of the institution's buildings are more than 50 years old and built with asbestos insulation, which makes cable runs more difficult (installers must work around it to ensure compliance with safety rules surrounding work in asbestos conditions).

Each facility features a combination of solid and suspended ceilings and conduit zones, depending on what the building is used for and when it was constructed. To route cable safely, much of the conduit had to be redone. A few university buildings lack plenum space altogether, requiring creative cable runs. More than 300 telecommunications closets of various sizes are also scattered throughout campus.

To manage these challenges while streamlining the project as much as possible, UQÀM needed simplified bills of material that could be customized to match building types and conduit zones. The institution also required a flexible cable and connectivity solution to work around building infrastructure obstacles, as well as one that was fast and easy to install to keep schedules on track.





Discovery

As a certified, end-to-end Belden site, UQÀM wanted to build on the Belden systems it had in place to maintain consistency, ensure compatibility and minimize space requirements.

For more than 25 years, the institution's 2-foot by 6-foot telecommunications closets have relied on Belden BIX Cross-Connect Systems to provide high-performance, high-density 1G connections for voice and data networks without connectivity issues. Belden wall-mount cross connect systems are deployed throughout campus as well to maximize space by using walls instead of floors for passive connectivity.

In addition to taking advantage of Belden's reputation for quality and local support, UQÀM also wanted to access the 25-Year Product Warranty and Lifetime Application Assurance Program, which ensures that a Belden Certified Networking System will be capable of supporting all industry standard applications during its entire installation life.





Solution

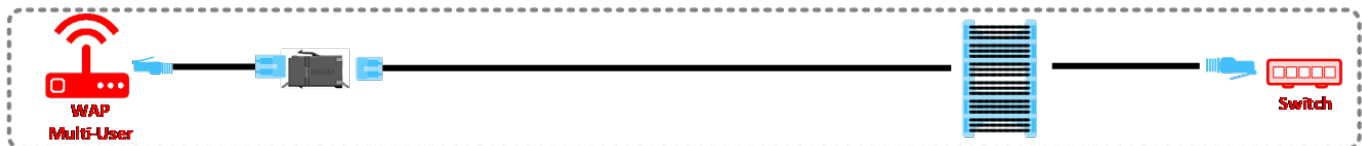
To offer the flexibility and performance the university needed – despite the ceiling and conduit variations across campus – Belden’s REVConnect Couplers and FlexPlugs were deployed to take advantage of REVConnect’s fast and simple termination process, which applies to any Category 5e, 6 or 6A component. The components also limit rework and re-testing, which kept the project on track.

Combined with Category 5e 1213 Cables and BIX Connectors, this end-to-end Belden solution supports up to 1 Gb/s of data and extended reach beyond 100 m when necessary.

In most cases, to eliminate extra connection points, modular plug terminated link (MPTL) topology was used to connect wireless access points to the network. This approach allows horizontal cable to connect directly to a device, such as a wireless access point.

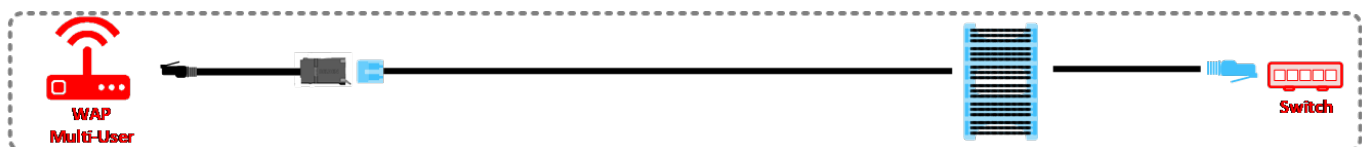
Belden provided connectivity solutions for two different installation approaches, depending on the access point’s location:

1. Deployment with REVConnect Coupler + Pigtail to the Access Point (same REVConnect termination for the core)



Using a REVConnect FlexPlug, which is compatible with any IoT device, and can be deployed in applications where the size of a typical field-terminated plug inhibits direct connection; it eliminates the need for a patch cord, biscuit box and jack.

2. Deployment with REVConnect FlexPlug to the Access Point (same REVConnect termination for the core)



Using a pigtail and a REVConnect Coupler, which allowed installers to customize their own FlexPlugs for deployments that required lengths beyond 18 in.

Belden also created simplified bills of material to prevent potential problems and meet the unique configuration needs of each building.





Results

Installers appreciated REVConnect's fast installation and termination method while still being able to maintain the best performance possible.

Because there were fewer components to manage and transport to the jobsite, Chantal Carignan, project manager for installer Bell Canada, was impressed by REVConnect's ability to streamline the project's bills of material and facilitate easier project management and follow-up.

The installers also appreciated REVConnect's fast installation and termination method while still being able to maintain the best performance possible.

Since deployment, the Université du Québec à Montréal hasn't experienced any issues with terminations, says Léo Cloutier, director of IT at the Université du Québec à Montréal. He plans to continue with these types of installations across campus, upgrading buildings to Category 6 cable and server rooms to Category 6A and singlemode fiber cable from Belden.



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