Courting Students with Next-Generation Wireless

Université de Moncton deploys a pervasive Cisco Unified Wireless Network with 802.11n across campus.

EXECUTIVE SUMMARY
UNIVERSITÉ DE MONCTON • Higher Education • Moncton, Canada • 4700 students, 675 employees
BUSINESS CHALLENGE • Attract new students by delivering a high-speed wireless network with pervasive coverage • Support an increasing number of high-bandwidth applications including video • Lay the foundation to deploy advanced services like Voice over Wi-Fi
NETWORK SOLUTION • High-speed wireless network, with WLAN management
BUSINESS RESULTS • Improved user experience and collaboration • Eased network management • Reduced capital and operational costs

Business Challenge

Today's college and university students have become accustomed to having wireless access to the Internet and other network resources. These students have grown up with wireless in their homes and, in some cases, their previous schools. At the same time, students expect to be able to run the high-bandwidth applications that they've grown up with over the wireless network, particularly in living areas like dorms. These include social media applications like Facebook or Myspace, video applications like YouTube or Veoh, video-messaging applications like Google Talk or Yahoo. Enabling students to have a rich media experience over the wireless network is crucial for both new student recruitment as well as student retention.

The Université de Moncton, the largest French-speaking university outside of the province of Quebec, looked to next-generation wireless technology with 802.11n to meet their wireless needs. "This is not a convenience service anymore; it's a 'must–have' for our campus in terms of staying competitive with the services that we offer and what's expected from the students," says André Lee, executive director of information and communication technologies for the Université de Moncton. "We know students judge us by the service they get when they're at Starbucks or at home, and we knew we couldn't offer a service that was sub par as far as wireless."

Solution

The Université de Moncton had previously had an autonomous wireless network running a mix of Cisco® Aironet® 1100 and 1230 series access points. However, to meet the needs of students, deliver an advanced network, and lay the groundwork for new services like voice, the University knew that it needed a lightweight wireless network with pervasive coverage.

"When we started looking at our campus and where we wanted to be in the future, we soon realized that we were moving from a model of access points in public areas to a model where we wanted complete coverage in our classrooms," says Denis Richard, the Université de Moncton's manager of communications and systems group. For the network at the Université de Moncton, 802.11n was not a luxury; it was a requirement mandated by administration officials. "We recognized that our students, more and more, are using various voice, video, and data applications that require high throughput, and only 802.11n could provide that for us."

To build a pervasive wireless network across campus, the Université de Moncton partnered with Hewlett Packard to provide network design and consultation services. To deliver wireless services across campus, the Université de Moncton uses over 300 Cisco Aironet 1250 series access points with power supplied by Cisco Catalyst® 3750-E series switches using enhanced Power over Ethernet (PoE). Wireless network integration is handled by two Cisco Wireless Service Modules installed in a Cisco Catalyst 6500 series switch.

Wireless LAN management is enabled by Cisco Wireless Control System (WCS). With WCS, network administrators are able to find and configure all of the wireless access points via an easy-to-use graphical interface. Wireless LAN configuration is also simplified because wireless LAN access points receive their configuration profiles from a central source, the wireless LAN controller, rather than having to manage access points individually.

Results

Students have clearly appreciated the network at the Université de Moncton. “We have noticed, for example, in our dorms, students appreciate the service a lot because there wasn’t WLAN service there before,” says Richard. “Also in the classrooms, there weren’t many buildings that had classroom access, and most of the campus classrooms weren’t covered, and now they are.” This increased coverage provides a better classroom experience for students, improved residential life, and increased efficiencies for both faculty and staff. And with the increased performance of 802.11n technology, a far wider variety of applications can be supported on the wireless network.

With 802.11n still in the early growth stages, the wireless network has also put the Université de Moncton in an improved competitive position with regard to other universities. “I know we’re early in the game in terms of 802.11n,” says Lee. “There are only 2.3 percent of North American campuses that have deployed 802.11n technology, and they’re looking at deployments of 100 percent for 2013. So I think this puts us in a great strategic position [compared to] our competitors.”

Next Steps

With a solid network to deliver data applications, including high-bandwidth applications like video, the Université de Moncton can look at other applications like location services or voice. However, as noted by Richard, developing the strong foundation was crucial for any kind of new service to be a success. “In order to be able to look at voice over wireless solutions, to even consider it on our radar, we needed the new architecture for our wireless network,” he says.

In the meantime, the Université de Moncton believes it has delivered the foundational wireless network needed for students, faculty, and staff to leverage an array of data applications well into the future.

PRODUCT LIST

- Cisco Aironet 1250 series lightweight access points
- Dual Cisco Wireless Services Modules (WiSM)
- Dual Cisco Catalyst 6500 series switches
- Cisco Catalyst 3560-E series switches
- Cisco Wireless Control System

For More Information

To find out more information about Cisco wireless networks, visit http://www.cisco.com/go/wireless/.

For more information about the Université de Moncton, visit http://www.umoncton.ca/.

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