

Case Study

Lesley University

Lesley University Implements Wireless Network, and Improves Service to Students, Faculty and Staff with Siemens HiPath Wireless

The task

- Prior to 2005, Lesley University operated separate wireless networks, based on standalone access points, at some of its locations. This decentralized approach provided only limited coverage for users and lacked a number of features and management capabilities that the University felt were critical to expansion and providing reliable and predictable service. The University wanted a single wireless system that could be centrally managed and easily accessible across the entire university.

The solution

- Lesley University selected Siemens HiPath Wireless, a technology that provides wireless connectivity directly over IP using a centralized management approach and standard IP routing technology for integration with existing network resources.

The benefits

- The HiPath Wireless LAN enables people on the Lesley campus to easily integrate technology into their daily routines.
- Students and faculty can use mobile devices in multiple locations on campus.
- HiPath Wireless allows people on the campus to work more effectively and communicate better. There is more flexibility in where people can work or study and this means higher productivity.

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Lesley University is a national leader in quality teacher education, preparing more teachers than any other private institution in Massachusetts. Founded in 1909, it is one of the largest providers of graduate education for classroom educators in the United States.

The university, which operates from its main campus in Cambridge, Massachusetts with secondary sites in Boston and Israel, and multiple locations around the country, is home to a variety of centers and institutes that conduct research, help shape public policy, and provide continuing education and professional development. Lesley focuses on experiential learning, citizenship, and close collaboration between faculty and students, creating an environment that prepares students to bring about change in the world.

Challenge

Officials at the university know that having a wireless communications environment and the latest networking technology on campus is becoming increasingly vital for attracting new students and enabling faculty and staff to work more efficiently. "Students today expect to arrive on campus and be able to use a variety of mobile devices to access the Internet and academic materials, and to communicate," says Karen Boudreau-Shea, CIO at the university. "There is a competitive advantage to having wireless capabilities," says Boudreau-Shea. In addition to providing services students want and need, wireless networking

allows teachers and administrative staff to do their jobs better. "Technology is becoming more and more infused in their day to day life," she says. For example, many faculty members are using wireless devices for teaching purposes in their classrooms as well as in multiple locations across the campus during the course of a day. Prior to 2005, the university operated separate wireless networks, based on standalone access points, at some of its locations. This decentralized approach provided only limited coverage for users and lacked a number of features and management capabilities that the University felt were critical to expansion and providing reliable and predictable service for years to come. "We wanted to have a single wireless system that could be centrally managed and easily accessible across the entire university," says John McDonald, associate director of infrastructure.

Solution

Lesley began its search for a new wireless system in April 2005. The technology group met to discuss the shortcomings of the existing, standalone access points. They also outlined a plan that included requirements to improve coverage and provide a management framework for a more integrated wireless network that could be seamlessly integrated into their existing infrastructure.

Managers researched several wireless technologies to determine which system best met the needs of the University. "We

then prioritized what was important to us, from a technology, deployment, and maintenance standpoint," says McDonald. Based on Lesley's needs and the systems and features available, managers narrowed the choice to a few vendors. After a final evaluation stage, they selected Siemens HiPath Wireless, a technology that provides wireless connectivity directly over IP (Internet Protocol) using a centralized management approach and standard IP routing technology for integration with existing network resources.

The HiPath Wireless portfolio includes the HiPath Wireless Controller and HiPath Wireless Access Points. The controller, a full-functioning router that aggregates all access points, enables centralized intelligence for wireless networks. It serves as the central platform from which up to 200 access points can be controlled and managed. These access points provide radio frequency coverage wherever wireless service is needed. Because of the IP-routed architecture of the controller, organizations can place access points anywhere in the network.

"Lesley initially purchased one controller and 30 access points, which were installed in July 2005. Phase One of the deployment provides wireless service in "open-use" areas such as the library and student center, and in all computer labs," says Boudreau-Shea.

McDonald says Lesley selected HiPath Wireless because it would easily integrate

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with Lesley's existing network infrastructure including its computer registration and user authentication applications. "That was critical; we didn't want to develop a new process for registering computers on the network or authenticating users," he says. This, combined with HiPath Wireless' capability to enable multiple levels of access, were critical components in the University's security strategy.

With a focus on security, Lesley has divided its wireless network into two segments, one that uses encryption for the highest-level of security and one that does not. "The HiPath Wireless controller enables managers to assign certain levels of access to the segments based on what group a user belongs to, for example, students, faculty members, staff or visitors," McDonald says. All users on the network must be authenticated and once they are authenticated, they can only access information for which they are authorized.

The IT staff and network managers at the university especially like the ease of use of the Siemens wireless system. The technical staff didn't have experience with wireless LANs, and after Siemens trained the staff in using and managing the system, they didn't experience any problems.

Benefits

Prospective students want to know that they can use mobile devices in multiple locations on campus—an attractive feature for people who use laptops, PDAs and other devices.

The HiPath Wireless LAN is enabling people on campus to more easily integrate technology into their daily routines; the wireless system is popular with both students and employees. Already about 800 students, faculty and staff have registered to use the wireless network. It

has allowed people on the Lesley campus to work more effectively and communicate better. "There's a lot more flexibility in where people can work or study," Boudreau-Shea says. "There's definitely a chance for higher productivity." For the growing number of faculty members who use laptops in the classroom, the enhanced wireless connectivity makes it easier to get access to the Internet and online applications. "It takes away another barrier to adopting technology for teaching," she adds.

The HiPath Wireless LAN also enables Lesley to offer a program called Classroom on Wheels (COW). The COW program features carts equipped with 20 laptop computers which can easily be moved to wherever they're needed for classes. "The classrooms themselves are wired but they're not equipped for a lot of connections," McDonald says. "Having wireless connectivity makes it that much easier to offer Classroom on Wheels because you just need one network connection in the room." Previously, the university had to place a communications hub in classrooms to provide access for laptops. With this added level of flexibility, the university can more easily convert a classroom into a lab for a semester.

The wireless network has made life easier for architects and builders who are working on a major renovation project at Lesley. With so many access points in place, they don't have to be concerned with dropping Ethernet cables in new areas to provide network access and this has also resulted in a savings for the University. Once the construction project is completed, Lesley plans to add another 30 Access Points. Boudreau-Shea says the university is also looking into whether it will expand wireless coverage into student dormitories.

The migration to wireless technology will continue. Lesley is expanding its use of a major building and will be moving its entire School of Education to that facility. Faculty have already requested that the

"The new wireless network gives Lesley University a competitive advantage over institutions that lack wireless technology."

Karen Boudreau-Shea
CIO, Lesley University



university make the entire floor—including offices, classrooms and open spaces—wireless. Lesley, pleased with its experiences with wireless, plans to do just that.

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