University Leads the Way in Media-Rich Mobility

Rochester Institute of Technology deploys media-ready wireless network to improve collaboration within campus community.

Case Study

Customer Name:	**Rochester Institute of Technology**
Industry:	**Higher education**
Location:	**Rochester, NY**
Company Size:	**3534**

Business Impact

Benefits delivered by the Cisco Unified Wireless Network include:

- Provided campuswide pervasive 802.11n wireless coverage
- Improved network management through network location services
- Enhanced student experience and quality of learning through collaboration

Business Challenge

For two decades, U.S. News & World Report has ranked Rochester Institute of Technology (RIT) among the nation's leading comprehensive universities. Internationally recognized for academic leadership, RIT is also known for providing unparalleled support services for students with hearing loss through its National Technical Institute for the Deaf. In 2009, RIT received a request from its student government organization asking for more wireless coverage. "Our students needed the ability to work together in common areas around campus without being tethered to their desks," says Greg Gardner, RIT's manager of network communications.

RIT noticed a new trend among its hard-of-hearing student population. Instead of using hardwired video phones plugged into television sets to make calls, students were now using netbooks with webcams for Video Relay Services (VRS). "In order to support the needs of our diverse student population," says Gardner, "we needed to deploy a media-ready wireless network that could seamlessly support converged data, voice, and video services anywhere."

Solution and Results

RIT conducted an extensive review of the major vendors before choosing Cisco. "We evaluated factors such as financial strength, support, innovation, commitment to standards, and performance. We also conducted extensive hands-on testing, with faculty and students from the Department of Networking, Security, and Systems Administration in the College of Computing and Informational Sciences," says Mike Muttitt, network engineer and technical lead for the wireless project. "Cisco's 802.11n solution proved to be the best choice for RIT. Capabilities, such as the Network Location Services (NLS) of the Cisco® Mobility Services Engine, ensure excellent performance by enabling our IT team to quickly troubleshoot, locate and mitigate problems, including density and utilization issues," says Muttitt.

To provide pervasive wireless coverage throughout its 5.3 million square foot campus, RIT deployed more than 3,400 Cisco 802.11n access points. "We collaborated closely with the Cisco team to design a high-density network that supports our media-rich applications, such as wireless VRS," says Muttitt. One of the applications that the wireless network supports is the RIT-developed C-Print application that enables students to receive text transcriptions on their laptops in real time. "RIT hopes to extend this system to allow students to simply point their webcams towards the instructors in the classroom. We would like transcribers and signers to be able to view the lecture and transmit captions and translations to students via the wireless network,"says Muttitt.

Today, RIT broadcasts university ceremonies and sporting events 24 hours a day which will be extended over wireless. With the new high-performance network in place, RIT is working with Cisco to support additional streaming applications.

RIT plans to support a growing number of voice, video and mobile applications over its wireless network.RIT sees potential opportunities around location enabled applications for in-building maps and navigation capabilities. "We're now also investigating Cisco's 7925 Wireless IP phones, as a possible way to further maximize our wireless network investment," says Gardner.

For more information on the Cisco Unified Wireless Network and 802.11n technology, visit: http:// www.cisco.com/go/wireless.

To find out more about The Rochester Institute of Technology and the National Technical Institute for the Deaf, visit: http://www.rit.edu/.

> "Together with Cisco's 802.11n network, we plan to roll out Cisco VideoStream technology to provide consistent video quality for all users accessing the network.We expect this to further enhance our students' experience and improve the quality of learning.
>
> **Greg Gardner**
> manager of network communications, RIT

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