Leading University Transforms Education

Purdue University improves quality of academic experience and student success rates with 802.11n network.

Case Study

Customer Name:	**Purdue University**
Industry:	**Higher Education**
Location:	**West Lafayette, Indiana, USA**
Company Size:	**40,090 students** **19,141 faculty/staff**

Business Impact

Benefits delivered by the Cisco Unified Wireless Network include:

- Delivered pervasive 802.11n wireless coverage
- Provided high-density and high-bandwidth capabilities to the wireless network
- Supported innovative mobile applications that improve student success rates
- Created a highly collaborative education environment

Business Challenge

Ranked among the world's top universities by *Times Higher Education*, Purdue University is one of the nation's leading research and academic institutions. Committed to providing the highest quality academic experience to its students, Purdue decided to upgrade its Cisco Unified Wireless Network in 2009. "Initially we had 1,500 access points in place, but they only covered public gathering areas. We wanted to provide mobile access everywhere on our 20-million-square foot-campus," says Scott Ksander, executive director of IT networks and security at Purdue. Facing the exponential growth of mobile devices from its student population, as well as new bandwidth-intensive educational applications, the university needed a significant increase in network capacity. "Since many students now carry multiple Wi-Fi-enabled devices, a classroom of 150 students typically has more than 200 clients," says Ksander.

Solution and Results

Purdue conducted a thorough evaluation of several wireless solution providers before choosing Cisco's 802.11n network. Purdue chose Cisco because of its leadership in three key areas. "Technologically, Cisco provides outstanding product quality and reliability, as well as unique enhancements, such as M-Drive and ClientLink. Its extensive partner network includes leaders like Intel and IBM. And our relationship with Cisco is a long-term collaborative one. We work together to address current challenges like high-density deployments and to support future enhancements, such as context-aware services and voice over WLAN," says Ksander.

Today, Purdue is well into its plan to deploy 6000 Cisco 802.11n access points within an 18-month period. The Cisco Wireless Control System (WCS) facilitates simplified and fast deployment. "WCS helps us minimize costs by enabling a team of only three IT network managers to centrally monitor access points located throughout our 255 buildings," says Ksander.

By enabling real-time communication through multiple devices and applications, the Cisco 802.11n network helps Purdue deliver a new form of dynamic education that improves student success rates. Signals, for instance, is a Purdue-developed application that indicates a student's academic status directly on his or her mobile device at all times. And the university's HotSeat application gives students the ability to interact with their instructors and classmates using their preferred communication method, including Facebook, Twitter, and SMS messaging.

With the 802.11n network supporting 300 Mbps, Purdue is transforming its campus into a more collaborative learning environment. "Because of the high-capacity 802.11n provides, our engineering class of 120 students can now connect simultaneously to the wireless network and work together on engineering simulations using tablet PCs," says Ksander. "The performance of the Cisco 802.11n network is outstanding, and student learning is improving."

> "Our reliable, high-performance Cisco 802.11n wireless network enables us to create the most innovative academic experience possible, improving students' learning today and ensuring their professional success in the future."
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> **Scott Ksander**
> Executive Director of IT Networks and Security, Purdue University

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 Purdue University, visit: http://www.purdue.edu/

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