St. Catherine University Makes Big Advances in Digital Learning with a Unified Network

Summary

Company:
St. Catherine University

Industry:
Education

Business Challenges:
Upgrade an aging network infrastructure to accommodate the digital learning and lifestyle of students and faculty

Technology Solution:
- WLA532 and WLA522 Wireless LAN Access Points
- WLC2800 Wireless LAN Controller
- EX4550, EX4200, and EX3300 Ethernet Switches
- Junos Space Service Now
- Junos Space Network Director

Business Results:
- Enabled digital learning and collaboration in the classroom and beyond
- Increased students and faculty satisfaction with St. Kate's network
- Simplified network management and user support

Students come to St. Catherine University (St. Kate's) in Minneapolis-St. Paul for an excellent liberal arts education in the Catholic tradition and a learning environment that recognizes women's distinct approach to teaching and learning. St. Kate's is the largest college for women in the U.S., and it also offers graduate and associate programs for women and men. St. Kate's has 5,200 students and is a leader in recruiting minority and nontraditional aged students.

Business Challenge

Not long ago, university students took notes during a lecture, and if they happened to miss a class, they asked a friend to share the notes. Today, universities are making it easier than ever for students to keep up with their courses by giving them the tools they need to watch a video replay of a lecture, communicate with professors at any time, and be connected from any location on campus.

According to John Jeries, CIO at St. Kate's, the tipping point for a digital learning transformation was Wi-Fi. "Wireless was becoming a major point of contention for students who wanted to have the same services they would get at home or at a Starbucks," he says. "They wanted the simplicity and ease of wireless that they were used to, but also the accessibility and bandwidth for their devices, which caused us to speed up our network upgrade process."

St. Kate's set out to equip the residence halls and classrooms on its St. Paul and Minneapolis campuses with first-class Wi-Fi. The university also needed to replace its aging data center network to support the modern realities of a strong liberal arts education—interactive curricula, streaming media, and the demand for mobility everywhere.

"Besides ensuring better coverage in residence halls and classrooms, we had to make sure each classroom could accommodate more devices," Jeries says. "Previously, classrooms could accommodate 20 devices—one per student—but students now carry two or three devices like a laptop, iPad, and iPhone, so we had to accommodate 60 devices connected to the wireless system from one small room."

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John Jeries, CIO, St. Catherine University

Technology Solution

St. Kate's chose a unified wireless and wired network solution from Juniper. Juniper Networks® WLA532 and WLA522 Wireless LAN Access Points support seamless 802.11n mobility both indoors and outdoors. Juniper Networks WLC2800 Wireless LAN Controller manages the entire wireless environment for the university. St. Kate's has also deployed Juniper Networks EX4550, EX4200, and EX3300 Ethernet Switches for its core and edge network to handle the growing bandwidth requirements of digital learning and mobility.

"We decided on Juniper due to the feature-rich environment, along with the cost per device and ease of transition to a new system," says Jeries. But the key deciding factor was Juniper Networks Junos® operating system. Junos OS is a reliable, high-performance network operating system for routing, switching, and security. It reduces the time needed to deploy new network services and decreases network operations costs. "Junos OS was one of the main reasons we selected Juniper," says Jeries. "Our people love Junos operating system because it's based on Linux and it's made the transition from our existing environment so much easier."

St. Kate's uses Junos Space Service Now and Junos Space Network Director to streamline operations and management of the unified network. Service Now simplifies how St. Kate's IT team gets technical support from Juniper and speeds time-to-resolution by eliminating time-consuming manual operations. Now, trouble detection for the Juniper network is automated and trouble-ticket management is simplified if problems do arise. The result is streamlined operations and reduced risk.

St. Kate's worked with Computex Technology Solutions, an IT services provider, to select and deploy the new network solution. "Computex brought great ideas to us when we were considering solutions," says Jeries. "Computex had good ideas about preparation and testing, design, and implementation before they even came to our campus. We worked collaboratively with Computex and Juniper."

Business Results

Students at St. Kate's give the Wi-Fi high marks for speedy performance and unfailing connectivity. The wireless LAN had to overcome challenges typical for a university—a high-density client environment, heavy-duty applications, and a never-ending spiral of streaming media.

"The best way to know what's happening with the network now is to hear from our constituents," says Jeries. "Before, our students, who are accustomed to having wireless wherever they go, were complaining about our wireless coverage, but after conducting a survey we found that both they and our faculty are happy with the delivery of the network and the content they can access over the network."

The new network has enabled St. Kate's to roll out new applications to support learning in all its forms. For example, students enrolled in the Henrietta Schmoll School of Health get hands-on experience with electronic medical records. "Electronic health records are a fact of life in the practice of medicine today," says Karen Mielke, assistant professor in the Master of Physician Assistant Program. "Our network allows us to expose students to the electronic health records so they can become competent and efficient in using them so that when they leave our program, they're ready to go in the practice of medicine in today's community."

In addition, digital tools are helping St. Kate's extend the reach of learning. "The campus may have to be closed due to weather-related issues at a moment's notice," says Nancy Johnson, assistant professor in the School of Business and Professional Studies. "In those circumstances, I'm able to move the classroom into the online platform, where students can log in via the Internet from anywhere. They can participate in lectures, download files, and view screens. The beauty of it is we can also videotape this and then record it and put it out on the Internet for someone to view it another day."

Jeries says that network management has become a breeze due to the tools provided by Juniper. "We're able to monitor both the wired and wireless side and see if there are any changes or any needs we have to address," he says. "We can resolve issues very quickly without having to spend a lot of time identifying and troubleshooting problems." Students are also able to get fast support by calling the help desk, which can then look at the network, identify the problem, and resolve the issue faster.

Next Steps

"The learning environment is changing, and we have a lot of faculty and students who work remotely from outside the campus, along with the students and the faculty that are on campus," says Jeries. "That puts more pressure on making sure that the network is available all the time. With Juniper, we are confident that we have a solid infrastructure to support multimedia and learning today—and tomorrow."

For More Information

To find out more about Juniper Networks products and solutions, please visit www.juniper.net.

About Juniper Networks

Juniper Networks is in the business of network innovation. From devices to data centers, from consumers to cloud providers, Juniper Networks delivers the software, silicon and systems that transform the experience and economics of networking. The company serves customers and partners worldwide. Additional information can be found at www.juniper.net.

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