



UNIVERSITY OF LOUISIANA AT MONROE MEETS THE NEEDS OF THE MOST CONNECTED GENERATION EVER

Summary

Company:

University of Louisiana at Monroe

Industry:

Education

Business Challenges:

Ensure the university network meets the needs of today's connected, collaborative students, cloud applications, and IoT devices.

Technology Solution:

- QFX5100 Switch
- EX4300 Ethernet Switch
- SRX3600, SRX340, and SRX220 Services Gateways

Business Results:

- Delivered on student and faculty expectations for great connectivity
- Built scalable network to meet the throughput and power demands of high-density mobile and IoT environment
- Fostered a digital learning environment for today's connected, collaborative students

The University of Louisiana at Monroe is a community hub for the northeast region of the state. Its healthcare and nursing programs are top-notch. It offers the only state-funded pharmacy program in Louisiana and one of the few toxicology programs in the nation. Residents can learn new skills and pursue education that fits their schedules through ULM Online. To meet the needs of digital learning and the most connected generation ever, the university refreshed its campus network with multigigabit switches from Juniper Networks.

"As an institution, you're only as good as your network," says Tom Hoover, CIO at University of Louisiana at Monroe. "Our network is critical to everything we do on campus, academically and administratively."

"Student expectations are extremely high," says Chance Eppinette, director of IT at University of Louisiana at Monroe. "The student mindset is that they don't know why the network wouldn't work."

Teaching a Digital Generation

Today's college students were raised in a digital world where social interaction is commonly digital. They've had smart phones for years, and expect always-on connectivity and engaging, collaborative learning.

Hoover has been working in IT in higher education for nearly two decades and has witnessed the digital transformation of learning. "Most of our incoming students don't know a different world," Hoover says. "They use their laptops or tablets to take notes, not pen and paper."

Students' technology habits are driving change across higher education. As Hoover explains, "Meeting those expectations is why we always have to improve our network. We can't wait five to seven years for a refresh anymore. We have to improve the network every two or three years."

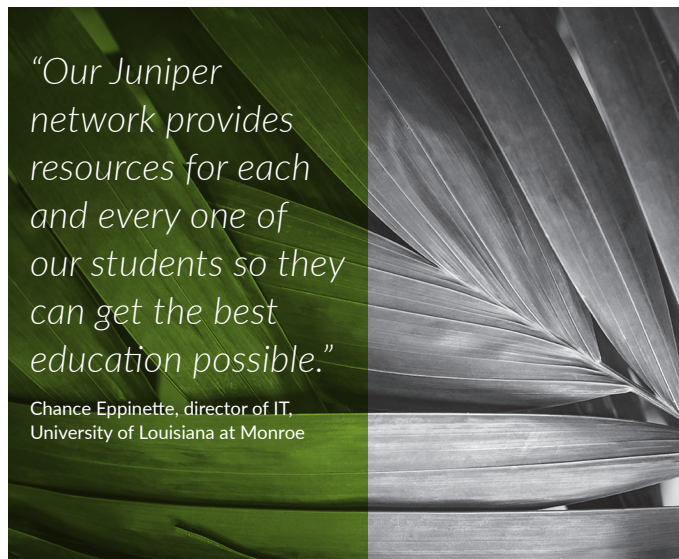
"Universities are competing for students, and we know students make decisions based on factors like technology. Our Juniper network delivers a competitive advantage."

- Tom Hoover, CIO, University of Louisiana at Monroe

University life—from phone calls and video chats to educational and administrative applications to campus security to sporting events—depends on reliable connectivity.

“We have embraced the cloud,” Eppinette says. Cloud-based applications have put more traffic on the network, driving the need to refresh. ULM relies on Ellucian Banner for student information systems, Moodle for its learning management system, and many other digital learning and administrative tools. The pharmacy school captures every class on video to ensure it meets its accreditation requirements. Even Wi-Fi management is cloud-based.

With 9000 undergraduate and graduate students on campus, everyone at ULM has at least a phone and a laptop, and most students bring four or five devices to campus. Staff and faculty typically have phones, tablets, and laptops as well. “The number of devices is growing by leaps and bounds as more of those devices become IoT,” says Hoover.



“The network is busy from a day-to-day student perspective, but it’s also essential to keep the facility running properly in today’s tech-savvy environment,” Eppinette says.

In the academic and administrative buildings, lighting, heating, and cooling are managed over the campus network. More than 1300 security cameras and secure-access doors keep the students, employees, and guests physically safe on campus. If an incident occurs, campus police have immediate access to the video footage, so they can investigate quicker. Vending machines, washers, and dryers also depend on connectivity for payment and notifications. Even the IT data center team has a Wi-Fi controlled robot vacuum for cleaning the data center floor.

Strong Network Foundation

WULM is picturesque, with the bayou running through the heart of campus, and more than 50 academic, administrative, athletic, and residential buildings on a 238-acre tree-shaded campus. It’s also totally connected.

The university uses the Juniper Networks® EX4300 Ethernet Switch for the edge network. A high-performance edge switch designed for Power over Ethernet Plus Plus (PoE++) and Media Access Control Security (MACsec), the multigigabit EX4300 Ethernet Switch is ideal for supporting high-density IP telephony, surveillance cameras, and wireless access points, which require multigigabit speeds and greater power connectivity. “We’re putting one in every telecom closet,” says Eppinette.

“Without a solid infrastructure, we wouldn’t be able to provide any services off campus,” Hoover says. “The network is crucial to how we operate.”

The pharmacy campus, a few miles from the main campus, is being connected to the university’s fiber network. Pharmacy students do their clinical rotations in Baton Rouge and Shreveport, and the university has joined with the Louisiana Optical Network Infrastructure (LONI) to provide high-speed connectivity with Juniper equipment.

ULM uses the Juniper Networks QFX5100 Switch, a high-density, high-performance platform for fiber concentration. Designed for high availability data center operations, the QFX5100 switch is configured in a redundant Virtual Chassis Fabric. ULM also uses Juniper Networks SRX Series Services Gateways for edge routing, remote campus, and Internet connectivity. SRX Series firewalls deliver high-performance security on a scalable and resilient platform, while LONI provides Internet2 connectivity and access to high-performance computing and other universities in Louisiana and beyond.

Ready for What Comes Next

“Our Juniper network provides resources for each and every one of our students so they can get the best education possible,” says Eppinette.

Technology is a competitive differentiator for today’s digital generation. As Hoover explains, “Universities are competing for students, and we know students make decisions based on factors like technology. Our Juniper network delivers a competitive advantage.”

With a Juniper network, the university is well-positioned to accommodate future growth in users, devices, applications—and the campus itself. The new core will easily accommodate the needs of a planned residential hall as well.

For More Information

To find out more about Juniper Networks products and solutions, please visit <http://www.juniper.net>.

About Juniper Networks

Juniper Networks brings simplicity to networking with products, solutions and services that connect the world. Through engineering innovation, we remove the constraints and complexities of networking in the cloud era to solve the toughest challenges our customers and partners face daily. At Juniper Networks, we believe that the network is a resource for sharing knowledge and human advancement that changes the world. We are committed to imagining groundbreaking ways to deliver automated, scalable and secure networks to move at the speed of business.

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