SUCCESS STORY

Oklahoma Wesleyan University

EXECUTIVE SUMMARY

Challenge
Build an adaptable, flexible network infrastructure to meet the growing demands of a university campus network

Solution
Brocade ICX switches at the access layer and core

Benefits
- Achieved a networking roadmap for the main campus and remote sites
- Gained a network infrastructure that can easily adapt to new technologies, such as VoIP, wireless, BYOD, and cloud-based applications
- Increased network scalability to support growing numbers of students, faculty, staff, mobile devices, and remote educational facilities

Oklahoma Wesleyan University Prepares Its Network for the Future

Located less than an hour's drive from Tulsa, Oklahoma, Wesleyan University (OKWU) attracts the non-typical college student. Undergraduate and graduate students are applying in record numbers, drawn by the university's small class sizes, low student-to-teacher ratio, and faith-based focus.

Although the selection process at OKWU is rigorous—only half of the applicants are admitted—the student population continues to grow. In addition, students are entering the university with mobile devices that they want to connect to the campus network. They are taking classes online, on campus, and at satellite campuses, and they need the same support from the network in order to pursue their studies.

"Everything about us is growing and changing," says Josh Bell, Network Administrator at Oklahoma Wesleyan University. "At this critical stage, we can't have network outages, and we can't be limited by our network. We need to step things up, and we need a network that is adaptable and flexible."

Passing the Network Stress Test
OKWU's network challenges are familiar to scores of U.S. campuses. The pressure is on for more applications, more devices, and more users to get on the network. Satellite campuses expect to have the same high-quality network service and support as the main campus, but without onsite personnel. At the same time,

committees are constantly reviewing budgets for cost-saving opportunities, so IT costs need to remain low.

OKWU met these demands by upgrading to a Brocade® advanced performance network with Brocade ICX® switches at the core and access layer. Students, faculty, and administrative staff realized immediate improvements in application performance, with much higher Internet and internal speeds.

"The performance we are realizing from the Brocade switches is phenomenal," says Bell. "The switches give us a lot more options by eliminating the need for power transceivers through PoE and reducing overall power consumption."

The school also gained a network that delivered on its total cost of ownership promises. Notes Bell, "Because Brocade switches support open standards, they integrate with other providers' switches. We then don't have to rip out everything and lose our investments. Our total cost of ownership will be less than half the cost of rival switches."

Brains and Brawn

With a Brocade network, the IT team can now say, "Yes, that's possible," when department heads ask about implementing the latest educational tools and resources. They also have the capacity to handle new projects, such as integrating Voice over IP (VoIP) calling with a new CRM platform, which will increase the traffic load significantly. Brocade has given the university the underlying technology to design a future roadmap with a larger and faster wireless network, cost-saving cloud-based services, VoIP, and a new cloud-based CRM platform.

"We have a great foundation now. Instead of being constrained by our network, we can be flexible and responsive to what our end-user population needs," says Bell. OKWU is handling its growth on campus by stacking Brocade ICX campus switches. For now, each dorm and satellite campus has at least one dedicated switch. When performance starts to lag, Bell can easily stack another switch to double or even triple capacity. "It's a simple change that doesn't require network reconfiguration," he says. "It's easy to manage, and we can quickly add capacity without draining our network resources."

Faced with thousands of new mobile devices on the network, OKWU welcomed the higher throughput from Brocade. The Brocade switches snapped quickly into place with the Aruba wireless network. "We were very pleased to hear about the Brocade-Aruba partnership and how the integration of the two platforms will help the network run more smoothly," says Bell. "Being able to use common management tools across the wired and wireless infrastructure will make my job easier."

With Brocade switches in the network, OKWU can add large numbers of devices without investing in new cabling. The university has deployed 30 wireless cameras and IP phones for staff and administrative personnel that rely on PoE. "We are able to improve our campus safety and reduce costs thanks to PoE in the [Brocade ICX] switches," says Bell. "It's a win-win for us."

Bell counts the new, streamlined network design as another win that resulted from moving to Brocade. Instead of hundreds of networks, he has one VLAN, which makes management, troubleshooting,

WHY BROCADE

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—Josh Bell, Network Administrator, Oklahoma Wesleyan University

inventory, and support much easier. He also sees the advantages of implementing a software-defined network based on Brocade switches for even simpler and more automated network management in the future.

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