

CASE STUDY

MIDLAND UNIVERSITY TAKES A CLEARPASS TO GROWTH

Secure enterprise Aruba WLAN with AirWave and ClearPass enables Midland University to meet current needs and scale to address future demands.



When Doug Ullman looked at his institution's exploding enrollment, a surge in demand for mobile access, and a "Best Regional Colleges – Midwest" ranking by U.S. News & World Report, he saw an existing wireless network that just wasn't cutting it.

"Our Wi-Fi was not giving us the reliability needed to serve and lead students in our increasingly active environment," says Ullman, Director of IT Infrastructure at the 1200-student private institution in Fremont, Nebraska.

"In addition," he adds, "our enrollment had more than doubled recently and various departments became increasingly dependent on mobile device technologies."

In short, Midland needed to update its aging Meru network with a secure, scalable enterprise WLAN offering robust, centralized management tools. "We needed a pervasive network, both indoors and out, with advanced management tools capable of supporting current and future wireless demands," Ullman says.

To that end, Midland investigated Cisco, HP, Meraki and Meru solutions. "We quickly noticed almost everyone else compared themselves to Aruba Networks," Ullman explains. "We figured if other vendors were expending resources comparing their offerings to Aruba's, we should look at it too."

BENEFITS

- Pervasive and scalable Aruba WLAN provides secure, reliable access to support quality teaching and learning as well as answering student demands for high-performance off-hours connectivity.
- Leverages AirWave Network Management for optimized wireless network management to deliver exceptional user experiences regardless of device type.
- Utilizes ClearPass Access Management System for focused, comprehensive policy enforcement.
- Includes AirGroup to support Apple AirPlay, Apple AirPrint and Apple TVs.
- Enables cost-effectively scaling-out the Wi-Fi network to meet future needs and goals.



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Doug Ullman

Director of IT Infrastructure, Midland University

Midland also consulted the latest Gartner Magic Quadrant for Wired and Wireless LAN Infrastructure, which positions Aruba as a leader. In addition, Midland learned Aruba was vendor-agnostic and could work harmoniously with other manufacturers' networking equipment.

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ARUBA SUPPLIES THE ANSWERS

With the help of local technology partner DataVizion, and members of the Aruba engineering team, Midland developed a comprehensive deployment and management plan. The plan included dozens of indoor AP105 and AP135 access points (APs), as well as multiple AP175 outdoor access points and several Aruba 7220 mobility controllers.

Midland also selected a combination of Aruba 2500 and 3500 mobility access switches. "In each campus building there is an HP ProCurve head switch connected to the network via fiber," says Ullman. "Connecting from the HP head switches to an Aruba access switch ensures we deliver gigabit power over Ethernet (PoE) all the way to the endpoint."

Other critical components of Midland's new wireless infrastructure provide centralized network optimization and access control. They include Aruba AirWave Network Management and the ClearPass Access Management System, both of which are part of Aruba's Mobility-Defined Networks architecture.

With AirWave, organizations like Midland gain critical and granular insights into its Wi-Fi network. This includes the types of devices logging on, the specific access points devices are connected to and the total number of devices on the network at any given time.

Using AirWave, Midland's IT staff can quickly adjust the network to meet the needs of all users to provide exceptional user experiences.

"AirWave not only provides us with a health score for every device on the network, it also revealed that 60 percent of devices connected to our WLAN at any given time were handheld mobile units – iPhones, iPads, iPods or Androids," says Ullman. "Sharing this device information with our Board of Directors resulted in our organization taking a new approach to other systems, making them more mobile-enabled and attractive to both current and prospective students."



In addition, AirWave assisted Midland with fine-tuning its network to ensure performance goals are met in all campus spaces. "We've used Airwave to figure out where we need to make adjustments," Ullman affirms. "With an increasingly active campus, it was important to optimize our mobile reach to all corners of our institutional space."

Another Aruba feature Midland appreciates is ease of installation. This enabled the deployment to double as a teaching and learning opportunity. "Two of our work-study students plugged in all of the access points," says Ullman. "They completed the entire installation in about three weeks, mostly when classes weren't in session."

CLEARPASS TO ACCESS CONTROL

As for ClearPass, it provides AAA (Authentication, Authorization, and Accounting) services, assisting institutions like Midland with comprehensively managing network policies, securely onboarding and managing devices and admitting guest users — all from a single platform.

For Ullman, the benefits of ClearPass abound. For example, it enables Midland to establish policies controlling device priority, which ensures activities related to teaching and learning aren't competing with off-hours endeavors.

"We're a residential institution where most of our students live on campus," says Ullman. "In their dorm rooms, students get on Netflix and Pandora as well as streaming on their Xboxes. With ClearPass, I can manage and throttle demand so that entertainment uses don't interfere with scholastic or institutional administration traffic."

Additionally, ClearPass enables Midland to quickly provision separate networks for ad-hoc needs. “We host numerous external events every year,” explains Ullman. “Now I can quickly stand up separate networks with their own SSID [service set identifier] to provide event organizers and attendees with whatever types of access they need. Post-event, I can tear down the SSID with a few clicks. It’s that simple.”

Yet another ClearPass benefit is the ability to leverage Apple AirPrint, Apple AirPlay and Apple TVs via Aruba’s AirGroup technology. “ClearPass enables us to channel iOS traffic,” said Ullman. “Our faculty and students are pretty excited about the ability to stream content and generate printouts with their i-devices.”

With Aruba, Midland is also on course to achieve its physical expansion goals. “When we asked Aruba about scaling out to meet future needs, we learned we’d only need to upgrade our controller, says Ullman. “It’s a comfort to know we’re already prepared for new opportunities.”

In fact, Ullman says being prepared for the future is one of the best rewards from investing in Aruba. “We’re no longer concerned about being limited by our network’s abilities,” he affirms. “With our Aruba foundation in place, we’re ready whenever it’s time to try something new. Instead of asking ourselves ‘can’ we do something, we’ll just focus on getting it done.”

ABOUT ARUBA NETWORKS, INC.

Aruba Networks is a leading provider of next-generation network access solutions for the mobile enterprise. The company designs and delivers Mobility-Defined Networks that empower IT departments and #GenMobile, a new generation of tech-savvy users who rely on their mobile devices for every aspect of work and personal communication. To create a mobility experience that #GenMobile and IT can rely upon, Aruba Mobility-Defined Networks™ automate infrastructure-wide performance optimization and trigger security actions that used to require manual IT intervention. The results are dramatically improved productivity and lower operational costs.

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