

CASE STUDY



Challenge:

- Provide convenient network/Internet access for students and faculty throughout campus
- Reduce IT administration time
- Cost-effective connectivity for off-site buildings

Proxim solutions:

- 3 ORiNOCO AP-600 access points
- 7 ORiNOCO AP-4000 access points
- 1 Tsunami MP.11a broadband wireless system

Results:

- Registration set-up time cut in half
- Year-round Internet/network access in gym
- Uninterrupted Wi-Fi access for students in and around library
- Broadband connectivity from dormitory to off-site administration buildings
- Project costs stay within tight budget constraints

Benedict College Gives Students 24/7 Wireless Access and Improves IT Efficiency

Established in 1870, Benedict College is a Columbus, South Carolina-based college focused on the education of African Americans. Like many rapidly growing higher education institutions, Benedict College continually seeks innovative ways to improve student and faculty services while maximizing limited IT resources. Faced with building expansion and an inefficient student registration process, Benedict began working with Conterra – a broadband wireless service provider – to solve its campus-wide Internet and network connectivity challenges. With Proxim's Wi-Fi and broadband wireless solutions, the college now provides its 3,000 students and 500+ faculty and staff, convenient high-speed access to the Internet and to the school's various resources and services.

Increased Access, Decreased IT Time

Benedict's first application for their Proxim wireless deployment was in the gym where it hosts numerous ongoing events such as long distance presentations, student registration and graduation. These events typically require Internet, satellite or basic network access for large numbers of faculty, students and constituents. Prior to deploying Proxim's Wi-Fi network, Benedict College's small IT staff struggled with an expensive and time-consuming set-up – bringing in special equipment and pulling wires each time an event took place.

Benedict began experiencing the results of the wireless network deployment in the gym immediately – most significantly in the student registration set-up. This set-up normally took at least a full week, often requiring the IT staff to work on nights and weekends. By deploying Proxim's ORiNOCO Wi-Fi access point in the gym, the college achieved year-round, wireless access for its students and faculty without having to deploy extra cable or equipment. Registration set-up time was cut in half, and students' waiting time during the registration process was greatly reduced.

"Using the Wi-Fi network made the registration process the smoothest we had ever had – for both students and IT staff. This really boosted morale for the IT team," said Katrina Damon, network administrator for Benedict College. "The time and expense previously required to manage our college's important events such as registration and graduation, have been dramatically reduced, and our students and faculty are now benefiting from reliable, convenient wireless access."

The college also deployed Proxim's ORiNOCO Wi-Fi access points throughout other points on campus to give students and faculty convenient access to the Internet, e-mail and network resources – without having to go to the Internet lab. Seven ORiNOCO access points ensure that the Benedict tri-level library is fully connected – enabling students to retrieve articles and find books even if they are in the middle of a discussion group or sitting outside.

Due to the success of these implementations, Benedict College is evaluating several ways to expand the network to create additional Wi-Fi hot spots around the campus. Wi-Fi hot spots under consideration include the library basement to facilitate Spring registration, a park where many events are held and the Knowledge Tree, a popular gathering spot for students near the library.

Partnering with Conterra

Conterra provided Benedict College with end-to-end wireless deployment and set-up services including site surveys, network design and installation and post sales support. After the first wireless deployment, Benedict was impressed with Conterra's high quality of service. The college asked Conterra to further analyze and recommend more ways to improve the campus' network performance using wireless solutions.

"They did what they said they were going to do in a timely manner. When they completed the install, there was no disruption to the school's existing services. And, they were very sensitive to our time and budget constraints," said Katrina Damon, network administrator for Benedict College.

Easy Expansion

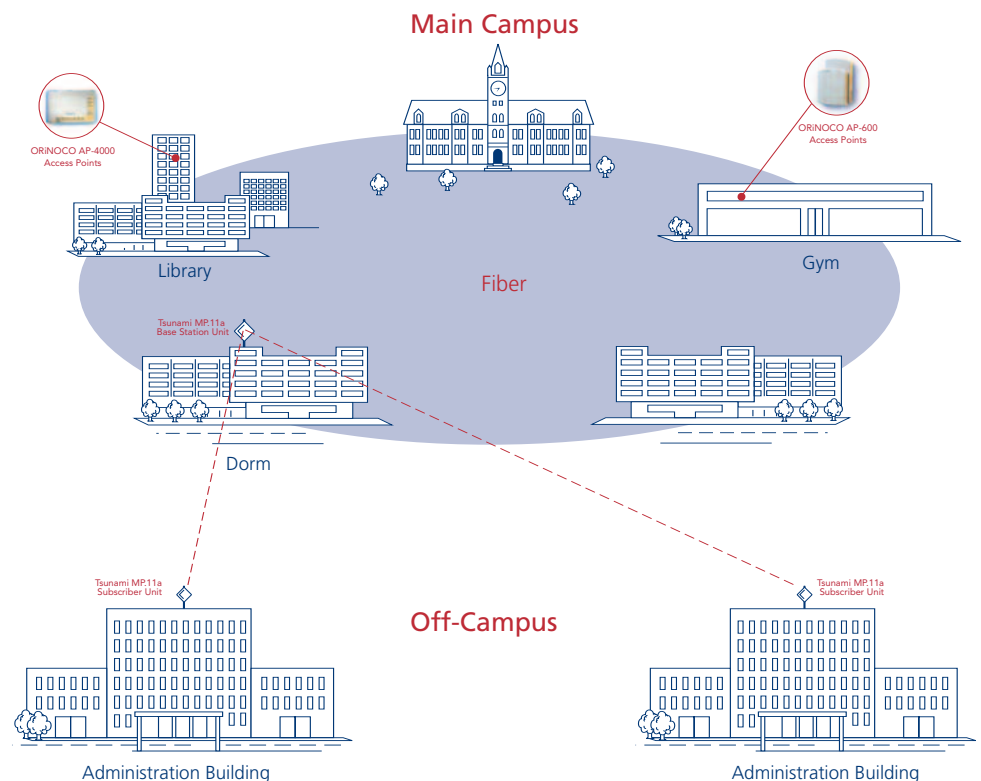
Benedict College has an existing fiber network in place, but when it came to extending connectivity from one of its dormitories to two off-site administration buildings, the cost of leasing lines or deploying more fiber was prohibitive. Benedict used Proxim's Tsunami MP.11a broadband wireless system to provide high-speed connectivity between these locations.

The college is currently implementing a \$50 million campus improvement plan, which includes land acquisition and the completion of a comprehensive athletics complex. Broadband wireless flexibility will allow Benedict to extend connectivity to remote sites as the college continues to grow and add more locations. In fact, the college is currently considering deployment of an additional Proxim Tsunami point-to-point system to link the college's new stadium, part of the athletics complex currently under construction, to the rest of the campus.

Network Design

In the gym, an ORiNOCO access point was situated high on the back wall as close to the fiber termination point as possible. The ORiNOCO AP-4000 access point radios in the library were twist locked and inconspicuously placed on the outside of the ceiling tiles. The AP-4000 access points used power over Ethernet injectors to power the devices, and Proxim's unique WDS feature allowed the 802.11a radio to be used for AP-to-AP communication. This minimized new wiring, keeping costs low and speeding installation.

The Tsunami MP.11a Base Station Unit used non-penetrating rooftop mounts on top of the dormitory building. This served as the central point for the outdoor wireless system, connecting to the campus' existing fiber network. Ease mounts were used for each Subscriber Unit located on top of each administration building.



About Proxim Wireless Wizard Partner: Conterra

Conterra, LLC is a Wireless Internet Service Provider specializing in the design, deployment and operation of carrier-grade digital point-to-point and point-to-multipoint wireless broadband systems. Its customers include education and government institutions and small to medium size businesses. Besides providing wireless connectivity to underserved communities, Conterra offers private networking services such as campus-wide broadband and Wi-Fi deployments. Based in South Carolina, Conterra was established by the founders and management of Vanguard Cellular System, Inc., one of the first independent cellular companies in the United States.

Why Proxim?

Conterra chose to use Proxim solutions in the Benedict College deployment because of their robust functionality and ease of use. The network interfaces are particularly easy to configure, and the systems are very reliable. Benedict's network administrator, Katrina Damon, agrees. She looks for quality and ease of installation and maintenance for any networking equipment she deploys. Although Conterra deployed the systems, Benedict's IT staff is responsible for ongoing management. They have found the systems to be remarkably easy to reconfigure when necessary, and connecting the laptops to the devices is simple. The ease of administration saves her IT staff's time. Damon was pleasantly surprised by the coverage capabilities of the access points which enabled the college to reduce the number of devices required. Finally, Damon is pleased that the combination of Proxim's Wi-Fi and broadband wireless solutions has ensured uninterrupted connectivity for Benedict's students.

Staying Competitive

Higher educational institutions are continuously competing for students. And today's students expect high-speed connectivity as they move around campus, the classroom and even inside of their dorm rooms. Universities strive to give students constant access to the resources that will improve the quality of the education they can provide. It's no longer an option. To stay competitive, universities must provide 24/7 access to the world from wherever a student is on campus and without over-stretching already tight IT resources. Benedict College was able to do just that with Proxim's wireless solutions.

"Working with Conterra, we evaluated various solutions that might help us achieve our goals and reduce the burden on our relatively small IT staff," said Katrina Damon. "The fact that Proxim could provide a combined indoor-outdoor solution that was robust and scalable and more importantly for our staff, easy to configure, re-configure and maintain, made our decision quite easy."



Proxim Corporation
935 Stewart Drive
Sunnyvale, California 94085

tel: 800.229.1630
tel: 408.731.2700
www.proxim.com