



Missouri Southern State University

While it may appear to be rural, Joplin, MO is also the fourth largest metro community in that state and has its feet planted firmly at the crossroads of a diverse four-state region. So, when administrators at Missouri Southern State University searched for a new wireless network, they selected a BlueSecure™ 5000 Controller that is flexible and could serve a wide-ranging community of students and faculty.



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BLUESOCKET DEPLOYMENT AT MISSOURI SOUTHERN STATE UNIVERSITY

- Wireless network based on centrally-located BlueSecure 5000 Controller, that will eventually include 80 wireless access points installed in 11 different buildings
- System connects to Cisco and Novell wired network and provides secure wireless access to more than 5,300 students and 450 faculty and staff
- BlueSecure 5000 manages authentication via a single university-wide ID and password
- 'Bandwidth throttling' lets administrators control file transfers and limit the exchange of large files that could impact system performance
- Bandwidth management also restricts peer-to-peer file sharing and music downloads among students across the entire wireless network

Visitors come to Joplin, MO because it is the gateway to the Ozarks and an important cultural and historical linchpin to a 5,000-square-mile four-state region. Students, however, come to the area for its educational resources and the personalized approach taken by schools like Missouri Southern State University, which installed a Bluesocket® wireless network earlier this year to provide more access to public and internal resources for its academic population.

Missouri Southern State University

In its long history as an education institution, Missouri Southern State University (MSSU) has gone through a number of changes as it evolved from a small junior college in 1937, with classes held in the local high school, to becoming a state-supported world-class university today, offering a variety of two- and four-year degree programs.

Along the way, however, the university has always put the educational needs of its students first as administrators planned for new programs and developed techniques that expand education far beyond the brick and mortar walls of the university's classrooms. In fact, it was this passion for personal education and enrichment that was a driving factor behind the university's decision last year to replace a small wireless system at the university with a more flexible and secure wireless network that will eventually be available in every building throughout the 365-acre campus, located in Joplin, MO.

After some research and product comparisons, the university chose a BlueSecure™ 5000 Controller from Bluesocket® as the central point in this continuing project because of its user authentication and tracking capabilities

and other features that minimized the support burden on MSSU's small IT staff.

"We spent a lot of time researching WLAN technology to ensure we were doing the right thing," says Steve Earney, Missouri Southern State University's assistant vice president for information services. "Other universities we contacted had some false starts because they didn't spend the up-front time making sure they were choosing the right solution, and we wanted to avoid that situation."

The Challenge for Missouri Southern State University

MSSU's wireless initiative began late last year, when officials realized that the two smaller and proprietary wireless systems installed in two of the technology buildings just couldn't be expanded to meet the needs of a university-wide network. Also, since the earlier systems relied on basic MAC address-based authentication and security techniques it could not provide the tracking and bandwidth control necessary to service a diverse student and faculty population.

"We have a relatively small IT staff, and did not want to manage thousands of MAC addresses, and track and lock those down,"



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“Without Bluesocket, we wouldn’t have felt comfortable going to wireless because we need the control. We have acceptable-use policies... that don’t allow us to neglect our responsibilities as far as what users are doing.”

Steve Earney
Assistant Vice President, Information Services
Missouri Southern State University

explains Al Stadler, Network Administrator at MSSU. “The time involved in managing this effort and chasing paperwork was our biggest concern,” he continued. “We needed a WLAN solution that would do authentication, do the tracking and then correlate the user ID, and manage the MAC address for auditing purposes.”

The Bluesocket Solution

The MSSU IT team looked at a number of solutions before selecting a BlueSecure 5000 Controller. While most offered basic user tracking, logging and auditing capabilities, the BlueSecure Controller was the only one they considered that provided Web-based authentication, strong security, and simple and uncluttered user log-in procedures. The IT staff actually discovered Bluesocket when it did a Web search for WEP authentication for 802.1x wireless technologies and came upon the company’s Website, relates Stadler. They immediately contacted Bluesocket and were soon loaned a BlueSecure 2100 Controller as a demo unit, which was installed and used to perform site surveys and position the first of many Foundry Networks IronPoint 200 wireless access points (APs) throughout the campus.

“You can read all the white papers you want, but to actually have a demo unit in your hands is important,” says Stadler, who was also impressed with the level of support Bluesocket provided to a potential customer. The company actually extended the demo lease twice to allow the university to compare the BlueSecure Controller with other products in the market and competing solutions at other schools.

Working with St. Louis systems integrator SageNet, MSSU installed the BlueSecure 5000 Controller in January and was able to seamlessly migrate from the BlueSecure 2100 demo unit by using the same script files created on the first system. The migration was, in fact, so smooth that student and faculty users probably didn’t even realize that a technology shift had taken place. At present, the BlueSecure 5000 Controller is centrally-located in an environmentally-protected environment and provides 802.11a and g wireless services to users in 15 different buildings, including the Billingsly Student Center and George Spiva Library.

Plans are to expand the current 65 or so Foundry Networks APs to approximately 150 by the end of this summer and connect 11 additional buildings, explains Steve Earney. The wireless network allows general access to the World Wide Web, with SSL protection, and more secure WEP access to the university’s wired Cisco Systems fiber and Ethernet network.

As noted, the BlueSecure 5000 Controller’s ability to manage wireless users and ease the burden of authentication was important in the selection process, as well as MSSU’s plans to expand the system to keep pace with increasing student and faculty demands. More than 5,300 students, 450 faculty and staff members at the university can access the wireless network by using the same user ID and password that allows entry into the wired network, by matching LDAP records on the school’s Novell servers. Using a single ID and password eliminates the confusion and resulting support workload created by multiple log-in procedures, says Information Services assistant vice president Earney.

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