



University of North Georgia

University Deploys Aerohive for Scalable and Cost-Effective Wireless Network Solution

Challenges

- Upgrade and expand existing network to provide comprehensive coverage
- Accommodate rapid growth and density needs for ubiquitous Wi-Fi
- Provide seamless network access for both faculty and students, with secure guest access
- Meet tight budget requirements for robust wireless network with enterprise features

Results

- Replaced entire network with reliable and comprehensive Wi-Fi coverage
- Allowed separate network for media devices in dorms and Apple TVs in classrooms, instrumental for digital instruction
- Provided cost-effective solution with superior network management system for easy monitoring and control
- Deployed flexible controller-less solution that can easily scale to meet rapid growth and density

About The University of North Georgia

The University of North Georgia (UNG) offers a high-quality, student-focused university experience in a beautiful mountain setting, spread across five campuses located in northeast Georgia.

With more than 16,000 students, UNG is one of the largest public universities in Georgia, and one of only six senior military colleges in the United States. The university offers a range of degree programs, including associate, baccalaureate, graduate, and certificate programs.

“With Aerohive, the University of North Georgia was able to accommodate a mobility learning environment as we added four campuses, planned for BYOD and increased density, and experienced rapid growth. Aerohive made scaling our network very simple. From not having additional licensing headaches and cost, to meeting instructor requirements for e-learning, we were able to surpass student, faculty and administrative expectations to deliver a superior wireless experience.”

—Chris Adams

Director, Network & Telecom Services
University of North Georgia

The University has a rich legacy, being the second-oldest public university in the state and the first to admit women.

The Challenge

As UNG grew and expanded, coupled with the explosion of BYOD, a first-rate wireless network was becoming a must-have. But like all long-established colleges, old buildings and tight budgets presented challenges to network administrators. As such, the campus in the past had been plagued by spotty wireless coverage and poor user experiences, without comprehensive wireless coverage. UNG was using older HP equipment for the wireless network and recognized it needed to evaluate new options. With a recent merger, the University grew and more than doubled its student population, as well as acquiring four new campuses.

UNG needed a wireless solution to handle the great increase in density, especially as it planned for future growth. UNG estimates and plans for four devices per student, including laptops, gaming devices, smartphones and tablets. It not only needed to manage issues of density in its residence halls, but throughout the entire campus. Digital learning initiatives and access to mobile devices were changing requirements for faculty and staff who required a seamless wireless experience, with coverage across all classroom and learning environments.

The university had been using older HP equipment for its wireless network and knew it needed to move from a controller-based solution to a controller-less environment. Not only would this meet budget and cost requirements, it would be more manageable to scale and expand the network, with network control right at the edge.

The Solution

The University evaluated numerous solution providers including Aruba, Cisco, HP and Xirrus. From the onset it was obvious that many solutions did not work well in UNG's physical environment, which is plagued by sharp corners, and a large number of offices and classrooms. Since, at the time, the University was in the midst of a consolidation, the issue was further complicated because the IT staff was unfamiliar with the layout of the buildings spread across multiple campuses.

After a rigorous testing period, Aerohive was selected. Aerohive access points excelled in auto channel selection, without concern for meticulous aiming capability for the AP. The heat mapping and planning tools were incredibly helpful and advantageous particularly as UNG expanded and acquired additional campuses. "The Web interface in HiveManager helped our UNG IT team gain familiarity with the new buildings when we deployed our wireless network upgrade," explains Chris Adams, Director, Network and Telecom Services. "Having visibility of actual maps of each floor plan, with the ability to plan for space coordination and concentration of users, gave us the capability to then make changes and adapt for room arrangement. Aerohive planning features proved invaluable to UNG."

The University implemented Aerohive AP330, AP230 and AP130 access points, and uses HiveManager on site. Additional Aerohive features are also indispensable, such as band steering, mesh technology, and detailed monitoring and spectrum analysis. UNG uses Aerohive's Application Visibility and Control to not only gain insight into how the network is being utilized, but to also know where to adjust or add additional bandwidth and invest in future upgrades.

The Private Pre-Shared Key (PPSK) feature from Aerohive has allowed the University to set up a separate SSID for gaming and media devices in its eight residence halls, with the ability to deploy secure wireless access, and to revoke access as mandated. Separate networks are deployed for classroom media devices, such as AppleTVs, as well as faculty and staff, and guest access is administered with captive web portal.

The Results

Since deploying Aerohive, UNG has experienced increased performance on the network with a high level of user satisfaction, which is a tremendous accomplishment for an environment with over 30,000 devices and an agile network IT staff of five administrators.

Recently, UNG was able to carry out a classroom-improvement project with upgrades to every classroom on campus with new state-of-the-art audio/visual enhancements, such as new projectors, multimedia instructor carts, Apple TVs and instructor iPads, with advanced audio visual capabilities. Without a solid Wi-Fi infrastructure in place, these devices and technology would not be possible.

"With Aerohive, the University of North Georgia was able to accommodate a mobility learning environment as we added four campuses, planned for BYOD and increased density, and experienced rapid growth," states Adams. "Aerohive made scaling our network very simple. From not having additional licensing headaches and cost, to meeting instructor requirements for e-learning, we were able to surpass student, faculty and administrative expectations to deliver a superior wireless experience."

Aerohive features have also enabled the IT team to justify bandwidth upgrades and the addition of new access points, as they have granular visibility into students' activities on the network. UNG is making plans to expand the network to outdoor locations with Aerohive outdoor 802.11ac access points, possibly to athletic facilities and green spaces for student access.

Meeting Growth and Development

The University of North Georgia recognized the need to overhaul its wireless network and establish a secure infrastructure that could meet and scale its rapid growth and expansion.

From accommodating 24/7 video streaming in residence halls, to providing a separate network for faculty with advanced features for classroom digital instruction, UNG has accomplished its goals to bring its wireless network to current standards of networking with a clear path for future enhancements.



Contact us today to learn how your organization can benefit from Aerohive wireless LAN architecture.

Aerohive Networks, Inc.
330 Gibraltar Drive
Sunnyvale, CA 94089

toll free 1-866-918-9918
phone 408-510-6100
fax 408-510-6199

www.aerohive.com
info@aerohive.com
CS-UNG 090215