



Greenville University

Early Wireless Adopter Overhauls Wi-Fi with Aerohive

Challenges

- Upgrade and modernize existing legacy wireless network
- Move away from controller-based model to embrace the cloud across all operations
- Accommodate greater and greater density demands across the university
- Enable seamless use of wireless technology in all parts of campus

Results

- Seamless management of Aerohive access points and Dell switches in single intuitive HiveManager NG network management interface
- Flexible wireless architecture, including the ability to use APIs for application integration
- Access points with dual 5 GHz band selectability to avoid Wi-Fi congestion and improve network efficiency
- Optimal price-performance for simplified management and seamless expansion

About Greenville University

Greenville University was founded in 1892 and is a four-year Christian liberal arts college located in Greenville, Illinois. Located in a small town on a 50-acre campus, the university is within close proximity to St. Louis. Greenville supports more than 1,500 students and boasts its status as the first college in the nation to implement a completely campus-wide wireless network.

Greenville offers over 50 undergraduate majors, as well as adult and graduate programs. The university offers masters programs in business and education and a comprehensive online program, which has been awarded numerous recognitions, including ranked in the top 10 of Best Online Colleges in Illinois in 2017.

“Everything about the Aerohive solution allowed flexibility across our entire deployment at Greenville University. When we upgraded to a cloud-based wireless network, we also gained features and seamless network management that will carry us into future network expansion and development. Features like dual 5 GHz radios, PPSK and the access to Aerohive APIs, allow our IT team to develop solutions that bring the best possible outcomes for our guests, students, faculty, and staff.”

—**Johnny Matthews**

CTO, Greenville University

The Challenge

In 1999, Greenville was the first campus in the country to go fully wireless, its Wi-Fi claim to fame, and the initial Cisco deployment did not have to be upgraded until 2008, when the IT team upgraded for newer Cisco models. In the last several years the IT team began to look at moving away from a controller environment to a distributed model after experiencing more challenges across the network.

Some of the specific challenges the campus was experiencing included poor reliability and network connectivity failure if a controller went down. Users also were forced to login repeatedly with a captive portal through the main firewall, which were happening during inconvenient times, such as in the middle of a class video presentation. Onboarding devices onto the network took more and more time and was eating up time with front line support calls, and then took multiple steps from senior IT technicians before a device could be connected.

The Solution

When Dell, which has a long history in the Greenville data center, learned about the need for an upgraded wireless network, they connected and introduced the university to Aerohive. After rigorous evaluations of Aerohive and Aruba, Greenville chose Aerohive and worked with Dell on network design, as well as leaning on Aerohive for technical expertise and support.

A key selling point for the Aerohive solution, aside from its distributed architecture, and network system management in the cloud, was the ability for Chief Technology Officer Johnny Matthews to use Aerohive APIs. The potential for building new apps with Aerohive's monitoring, location and identity APIs opened a world of opportunity and allowed the IT team to see the new wireless network as a solution tool to potentially replace other applications. Even while in the pilot program, using Aerohive's online developer documentation, Matthews was able to generate a widget to integrate into the existing campus intranet to enable students to self-authenticate devices with Aerohive's Private Pre-Shared Key (PPSK), and set it up within the first week of deployment. PPSK is used for onboarding devices and guests, including gaming systems and other devices.

Greenville deployed Aerohive AP130, AP250, AP550, and Aerohive AP245X access points with external antennas. The university uses HiveManager NG for wireless network management, including managing Dell switches the university recently acquired in a single pane of glass with seamless port configurations. Leveraging Aerohive's access points with software selectable radios, Greenville has realized higher speeds with more channels and less interference. Access points such as the AP250 and AP550 can be switched to dual 5 GHz band mode, allowing for flexibility, better network efficiency and optimal Wi-Fi design.

As the network requirements change, Greenville appreciates the flexibility to purchase and add only as many access points as are needed, without being forced to acquire blocks of devices. The IT team plans to expand outdoor coverage in the next year, and this flexibility will allow cost savings. Digital signage is now powered by Wi-Fi throughout the campus, saving thousands of dollars per sign and not requiring cabling. The university will soon consider leveraging iBeacon technology to possibly track down stolen devices, and using location services for additional student safety and security.



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

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