



The College of William & Mary

Historic University Prepares for the Future of Wireless Networking with Aerohive

Challenges

- Wi-Fi platform must have support for latest wireless technologies
- Reliability was critical – the school was in the midst of redesigning its wired switch and router infrastructure to be more fault-tolerant and resilient to failure
- Needed to integrate easily with the University’s existing home-grown Network Access Control (NAC) system
- Wireless solution had to be easy to deploy and easy to manage due to limited staff

Results

- Solution integrated seamlessly with the University’s NAC system, which segments different groups such as freshmen, faculty and staff, visitors, and contractors
- Management of wireless network infrastructure simplified with HiveManager, providing centralized configuration and monitoring and provisioning for system-wide policy management
- With diverse mobility requirements, connectivity has been rock-solid and network is poised to adapt to future requirements for modern networking

About The College of William & Mary

The College of William & Mary, the second oldest college in America, sits on a 1200 acre campus in historic downtown Williamsburg, Virginia. Named one of Intel’s 50 “Most Unwired College Campuses” for its campus-wide wireless network, William & Mary is a genuine blend of old and new. One of the newest additions to the over 100-building campus is the three-story, 166,000 square foot Alan B. Miller Hall that houses the University’s Mason School of Business.

Challenge

Like the rest of the campus, the School of Business needed comprehensive wireless coverage throughout its new facility. A formal vendor selection process was begun in 2007 and four key requirements were identified. High on the list was support for 802.11n, as well as the flexibility to embrace future modern

networking capabilities. “It made sense to invest in the latest technology, which provided higher throughput and more channel availability,” says Norman Elton, Network Engineer, who manages the wireless LAN at the University.

Even more important was reliability. “We were in the midst of redesigning our wired switch and router infrastructure to be more fault-tolerant and resilient to failure. We were looking for the same characteristics in the new School of Business wireless LAN as well,” says Elton.

Another important criterion was the ability to integrate easily with the University’s existing home-grown Network Access Control (NAC) system. And finally, with a large, complex campus-wide infrastructure to maintain, as well as limited staff to maintain it, the chosen wireless LAN solution had to be easy to deploy and easy to manage.

Solution

Elton evaluated wireless LAN products from Cisco/Airspace, Meru, Trapeze, Aruba, and Aerohive. In the end, Aerohive best met the needs of the University, with Aerohive being the only solution to offer cloud-based infrastructure. “We felt that going forward with a distributed architecture from Aerohive lined up with our desire to be more fault tolerant,” says Elton. “Tunneling all the traffic back to the core didn’t make a lot of sense.”

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—Norman Elton

Network Engineer, The College of William & Mary

The Aerohive solution offered software-defined access for adaptable, flexible, and cost effective wireless and wired networking. The result is enterprise-class network management and security without the cost, performance, and availability issues associated with former technologies. "Aerohive provides centralized control and management. The access points communicate with each other, but there is no single point of failure for user traffic," says Elton. "That was really the clincher for us."

Elton's team performed a site survey, a contractor pulled the cable to the designated locations, and a field engineer from the University installed the access points within a few days, mostly above the ceiling for aesthetic reasons. A few outdoor access points were installed to cover green space. "The engineer just hung them, plugged them in, and walked away," remarks Elton. "It worked out pretty well."

The College of William and Mary has purchased over 1,000 access points and full implementation is expected to be completed over several years, with ongoing updates as required as the network evolves..

"The College of William & Mary has relied on Aerohive for many years to provide enterprise wireless networking," said Norman Elton, network engineer, The College of William & Mary. "At the start, we

deployed a network designed for capacity, and now are excited to embrace Aerohive's vision for software-defined networking to support next-generation access. We recently started deploying Aerohive's SD-LAN AP250 access points with software-driven intelligence across our campus, and look forward to continuing to roll out more of Aerohive's innovation in this new market direction."

Results

The network integrated seamlessly with the University's NAC system, which segments different user groups such as freshmen, faculty and staff, visitors, and contractors, each with its own security policies. Faculty and staff go through WPA2 encryption to access academic applications such as Blackboard, as well as Banner, the school's ERP system.

Managing the network has been greatly simplified with Aerohive, allowing centralized configuration and monitoring and provisioning for system-wide policy management. Since deployment many years ago, the network has performed without issues and continues to evolve and adapt. At the start of transforming its network architecture, The College of William & Mary embraced cloud-networking, untethering its network from the controller of the past, to today embracing new capabilities for modern networking such as software-defined networking for the LAN..



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

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