



Montgomery College

Montgomery College Selects Aerohive for Controller-Less and Flexible Wi-Fi

Challenges

- Move to controller-less solution to enable no single point of failure for 100% coverage college-wide
- Provide a reliable network to serve nearly 60,000 students
- Enable centralized management of the network for the IT team
- Meeting wireless needs of specialized departments

Results

- Comprehensive wireless network across all campus locations, including outdoor instruction areas
- Ability to segment users, devices and traffic and better understand users on the network with HiveManager
- Increased efficiencies and cost savings with administrative and IT departments leveraging wireless technologies
- Reliable Wi-Fi functionality for mobile carts, iPads and medical instruments and equipment

About Montgomery College

Montgomery College (MC) is a public, open admissions community college located in Montgomery County, Maryland. Founded in 1946, the multi-campus college serves nearly 60,000 students annually and employs more 3,000 staff across its three campuses as well as four satellite locations. As one of the largest community colleges in the nation, Montgomery College offers credit and non-credit programs in more than 130 areas of study.

The three main campuses of MC are located in Germantown, Rockville and Takoma Park/Silver Spring, with satellite locations throughout Montgomery County.

The Challenge

Montgomery College had Wi-Fi in place in some campus locations for several years. Students and staff could access only the Internet and for the most part the IT team left the network alone for a few years. However, when Wi-Fi provider Nortel Networks filed for bankruptcy and began to have severe business problems, the College was forced to reevaluate. The problems at Nortel were the push the IT team needed to take a broader and more comprehensive look at its wireless network solution.

MC needed to provide 100% coverage at all campus locations. There were more and more academic drivers for needing comprehensive and robust Wi-Fi, including a vibrant sciences department that increasingly depended on wireless access to conduct many of its academic and classroom activities. MC also wanted to implement mobile carts to provide Wi-Fi in areas that typically would not have coverage.

At the time, MC only had public and open access to the network, and while the College needed to continue providing basic access for students, it needed an enterprise solution that would enable MC to segment users, devices and access, with greater network management capabilities. In addition, the College has seen a great

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—Anwar Karim

Chief Technology Officer, Montgomery College

influx of devices, especially since its network is open and many local residents also visit the campus to access free Wi-Fi. Many departments had approached the IT team wanting to use iPads for classroom instruction and to access specialized apps. Implementing a network architecture to handle a large number of devices was key.

The Solution

Montgomery College turned to the Gartner Group for insight and direction to select a new network solutions provider. The Office of Information Technology went into the evaluation process with no favorite in mind and with no preconceptions. The IT team brought in Aruba, Cisco and Aerohive to bench test against one another. The controller-less solution from Aerohive distanced itself from the competition.

"Everyone makes great gear, but it came down to if we lost a controller, the entire campus would be down," explains Chris Novak, Network Engineering Manager at Montgomery College. "However, if HiveManager lost functionality, we still had complete access across all our campus locations. This was huge for us."

A key factor for the College in choosing Aerohive was the ability to capture information and data to learn more about the network and its users, enabling MC to provide better services and understand its users on a deeper level. The College has a single SSID for its guest network, with several SSIDs for students, administration and a dedicated network for academic instruction.

Montgomery College deployed Aerohive AP120, AP121 and AP320 access points, with nearly 1,500 access points across its seven campus and satellite locations. There are also AP170 outdoor access points at the Science Center on the Rockville campus. Mobile carts are equipped with AP121 access points with VLANs to guarantee the best performance possible with dedicated bandwidth and access.

MC uses HiveManager on site and has had no issues with the controller-less environment, finding the network easy to manage and extremely reliable. On the support side, Aerohive engineers are very responsive, the IT team has found the training to be invaluable, and the Aerohive online community, HiveNation, has been a great informational resource.

The Results

With a robust network from Aerohive in place, reliable Wi-Fi has opened many doors for educators to expand and transform academic instruction, as well as improved efficiency in operations and administration. The Metro Washington Council of Government and other organizations are taking note of the solution and Montgomery College is considered a technology leader for its network solution, presenting at EDUCAUSE and other consortiums.

The Aerohive network was first deployed to the Biology department and the sciences departments continue to leverage Wi-Fi for many aspects of classroom instruction, including using iPads for teaching. With a dedicated access point on each 'classroom on wheels', professors can give quizzes or work through modules with guaranteed wireless performance from these mobile carts. MC has now deployed over 40 classrooms on wheels across the college.

The Sciences departments utilize a great amount of wireless equipment, including IP-enabled microscopes and Wi-Fi in its hospital simulation labs to tie in all components of the room, including laptops on carts to record vital signs and disperse medication.

The Botany department has deployed an outdoor access point with mesh network redundancy in its greenhouse, saving cost and expense by eliminating the need for MC to run cable to provide network access. Landscape management classes, botany and horticulture students use Wi-Fi in this outdoor classroom environment.

The IT department is now using wireless technology for asset management, scanning bar codes on each piece of equipment that arrives to shipping and receiving, with this information wirelessly syncing directly to a database.

With the success of the network, MC has surveyed its students and received feedback for future wireless expansion. The next deployment will be in a new four-story outdoor parking garage, giving students access to the network while they work before classes start. Since the majority of students commute from many surrounding areas, this addition to the new garage will be highly beneficial. MC also plans to expand outdoor Wi-Fi access in the coming year.

Forging Ahead

"One of the best things about the Aerohive architecture is the flexibility we have at Montgomery College to now meet the needs of both our students and faculty to provide not only optimal learning environments, but to offer Wi-Fi capabilities across our entire campus in places we did not previously imagine were possible," stated Anwar Karim, Chief Technology Officer.

The Aerohive solution is intentionally architected to allow educators like Montgomery College and any organization to adapt, expand and control its wireless network, ensuring a firm foundation for today, with flexibility for future requirements.



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

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