Pittsfield Public Schools

Massachusetts School District Secures E-Rate Funding for Flexible and Robust Aerohive Wi-Fi Solution

Challenges

- Enable efficient wireless network management across 12 schools and administrative facilities
- Allow more network control and flexibility for IT team
- Deliver robust wireless network to enable eventual 1:1 classroom environment
- Upgrade all schools to 802.11ac technology

Results

- E-rate funding process simplified with Aerohive and team of solution providers
- Aerohive PPSK feature simplifies network management and secure connection for every device on the network
- Classroom technology integration is growing and expanding and teachers are using Aerohive's HiveSchool App
- 802.11ac deployed across all schools, including PoE+ capability on Aerohive access points to ensure durable solution

About Pittsfield Public Schools

The Pittsfield Public School District serves the community of Pittsfield, Massachusetts and the district comprises eight elementary schools, two middle schools, two high schools, an adult learning center and special education programs. With 5,700 students in the district and 1,200 support staff and teachers, Pittsfield schools offer a broad range of programming.

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> **—Randy McLeod**
> Technology Director
> Pittsfield Public Schools

The district is proud of its nationally recognized Pre-K and Parent-Home-Child programs that propel students into competitive colleges. Situated in Berkshire County and near Williams College and the city of Williamstown, the district is surrounded by art and culture.

The Challenge

In the last several years, Pittsfield Public Schools has implemented technology programs that necessitated the requirement for a Wi-Fi upgrade across all schools. The district has deployed over 1,500 Chromebooks and approximately 1,350 iPads, with many students assigned an individual device, including iPads for Advanced Placement classes at the high school level. Pittsfield plans to implement additional Chromebooks in the near future, reaching an overall district goal of becoming a 1:1 environment.

The IT team had relied on a Bluesocket network, and with the addition of more devices, it recognized it would need to upgrade the Wi-Fi architecture. The district is also a heavy user of Google for Education and needed a network in place to meet evolving Google requirements. In addition, schools were experiencing greater problems with reliability, and the IT team began the process of evaluating wireless network solutions.

The Solution

Pittsfield Public Schools turned to its trusted solution provider Whalley Computer, along with Nichole O'Neal, an independent consultant the district utilized for E-rate counsel. "The first year I was here with Pittsfield, we applied for E-rate funding and it was very overwhelming," explains Randy McLeod, Technology Director, for Pittsfield Public Schools. "Once we applied, vendors started coming out of the woodwork and it was not only difficult to keep up with inquiries, but it was also harder to determine what solution was best for our school environment."

Initially, Randy and his team were going to upgrade the existing Bluesocket network and weren't looking to switch providers. However, once they saw other solutions in the market and narrowed down providers, Aerohive came out on top. Aerohive would enable the district to upgrade to a comprehensive cloud-managed environment, which they had anticipated might be out of the district budget. Aerohive had existing state contracts for E-rate, cost effective pricing and outstanding customer support, allowing Pittsfield to replace its entire wireless architecture, beginning with the administrative and student resource buildings. All administrators on the IT team also completed Aerohive training to learn the ins and outs of cloud-based wireless networking.

Pittsfield deployed Aerohive AP250 access points and HiveManager NG for network system management. A key advantage for the district was the ability to upgrade to 802.11ac without the requirement to upgrade the existing PoE infrastructure. The Aerohive AP250 access point has PoE+ capability on one port, which ensured stability for the district's wireless solution. In the next round of E-rate funding, Pittsfield will look to replace its switches, and the ability to manage both Aerohive and Dell switches within HiveManager NG is a tremendous benefit that will play into consideration in the decision making.

The Results

Since deploying Aerohive, Pittsfield Public Schools has implemented not only several Aerohive features to improve network management, but is also seeing an increase in classroom technology use.

"Previously, we had issues with external unauthorized network use, which led to decreased bandwidth. Aerohive gives us flexibility and control so we can shut down the open guest network during academic testing or to ensure people will not connect during a set period of time," explains McLeod.

The Aerohive Private Pre-Shared Key (PPSK) functionality is powerful and will allow Pittsfield to implement unique pre-shared keys for individuals or groups of users to connect on the same SSID without complex configuration. The PPSK capability has replaced the BYOD network and given more control to the district for bandwidth limitations and time settings.

Some teachers have implemented Aerohive's HiveSchool app, including a particular first grade teacher at Allendale Elementary who McLeod describes as able to "change your mind in a minute about what kids can do with technology in the classroom." Many classrooms use projectors and Apple TVs and connect to the wireless network for classroom mirroring. Aerohive's Bonjour Gateway feature may be enabled to manage Apple products, especially at upper grade levels.

The Pittsfield community uses PowerSchool, including TIENET for special education and IEP management. The SchoolMessenger app is used for parent and community engagement and for simplified communications. Sometimes when cell coverage is spotty, administrators and faculty use the wireless network to FaceTime. Cafeteria terminals and cash registers are beginning to transition to wireless functionality and the bus transportation depot now can connect to Wi-Fi.

With a limited support staff in the district, Randy and his small IT team were grateful for the overall ease of installation and dedicated support, crucial for a district with budget challenges.

Simplified Connection for Continued Wireless Expansion

Pittsfield Public Schools has realized great success with Aerohive and with many integral city services and programs connected to the school district, prompting the IT team to reach out to the city of Pittsfield in the future to propose an all-in-one solution for city departments as well.

Pittsfield expects more and more devices and operations to come on the network as the deployment expands and grows. "Aerohive has been an ideal solution for Pittsfield Public Schools. Overall, the ease of installation and support have made the transition seamless. Aerohive is also a true partner in our district, following up with us to maximize our deployment and to offer support for features to make our infrastructure more efficient," states McLeod. "With the many changes across our schools in the last several years, we are confident Aerohive will carry us to move forward to meet future requirements."