



Hampton School District

School District Jump-Starts Technology Plan with Aerohive's Cloud-Managed Wireless Networking Solution

Challenges

- Outdated wireless network in need of upgrade
- 1:1 rollout was going forward but network could not support growing density and capacity needs
- Tight budgets required a flexible, scalable, and cost-effective solution

Results

- Enterprise-class Wi-Fi enabled rock solid network access across all schools
- Cloud-managed solution enabled IT team to have valuable insight into network use
- Scalable solution allowed District to expand in phases, meeting budgetary requirements

About Hampton School District

Approximately six years ago, the Hampton School District, located in the seaside town of Hampton, New Hampshire, was formed after several districts were re-divided to better serve students and residents. The District has three schools with roughly 1,200 students from preschool through grade 8.

Hampton is the only district in the state to be recognized as a SMART Showcase District. Marston School, serving students in grades 3 through 5, was selected as the New Hampshire School of the Year for 2012, and recently chosen for the Commissioner's Circle of Excellence. The Centre School was also named a National Blue Ribbon School of Excellence.

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—Greg Limperis,
Director of Technology, Hampton School District

The Challenges

When the newly-formed Hampton School District was created, there were many changes including the hiring of a new Superintendent and a few years later, the desire to hire an innovative Director of Technology. The District put in place a visionary three-year technology plan, including implementing a 1:1 environment across all schools. Hardware upgrades to further promote digital instruction included new laptops for teachers and mobile lab carts for classrooms.

The District faced outdated networking equipment and at the same time was experiencing an increase in devices as desktops were replaced with other mobile devices and Chromebooks were issued to students. A BYOD policy was also developed and supported by the School Board as a way for teachers to access other equipment not otherwise available to them. This BYOD policy also meant additional devices would now be attaching to the wireless network. Since Hampton had just passed approval to purchase laptops for each teacher, and granted additional Chromebooks and new projectors for the following year, the IT team was facing tight budgets to accommodate a new wireless infrastructure. The need to upgrade the architecture was becoming more and more urgent as instructors complained of poor network connectivity. It was clear the current network solution could not accommodate density, and could not

handle an influx of additional users and devices. In addition, the District did not have a standardized solution across all three schools, so teachers observed some schools experiencing better or worse connectivity than others.

After the initial Chromebook rollout to 3rd and 6th grade students, the District was preparing to deploy a 1:1 environment with plans for all students in the district being equipped within two years. The District realized it needed to immediately solve the issues of network capacity and reliability in order to make the initial 1:1 rollout successful. Even with a phased process, schools were experiencing issues with the wireless network and the IT team was really in an emergency mode as to not fall further behind in the goals for the district technology plan.

"Technology is not going to slow down. We realized we did not want Hampton School District to fall further behind. Our IT team aims to be available to teachers so they can focus on top-notch instruction. Without reliable Wi-Fi, we were not able to have a strategic focus as we were spending a lot of time putting out fires," explains Greg Limperis, Director of Technology.

The Solution

The District considered Meraki and Ubiquiti Networks but believed Aerohive to be the best wireless solution with superior dependability, central management and capacity for density. The District rapidly put an Aerohive solution in place at the beginning of the school year to set up third graders for 1:1 success. One of the first tests of the network was to have each student stream YouTube simultaneously. The IT team was blown away to not experience a single issue, ensuring a smooth start to the school year. "What was most impressive about Aerohive, aside from the superior solution offering, was Aerohive's top-notch service and support. Knowing the Hampton School District was able to achieve low cost of ownership and longevity of devices gave us confidence for entrusting our Wi-Fi to Aerohive," states Limperis.

Following the success of the initial deployment, Hampton had momentum for additional budget approval to standardize all schools with Aerohive. The District uses Aerohive AP121 and AP230 access points, with one AP per classroom. Hampton also uses Aerohive SR2148 and SR2024 switches, creating user-centric intelligence and even more simplified and unified network management and provisioning.

Hampton School District uses Aerohive's HiveManager Online for cloud-enabled network management. This coming summer, the District will migrate and upgrade to HiveManager NG, Aerohive's next generation network management platform, to provide even more features and functionality.

"Hands down, Aerohive has been my preferred platform. HiveManager Online is unbelievable and gives us visibility to troubleshoot network issues quickly, understand how signals are interacting, and especially helps in the planning phase of any network expansion. We even have floor maps hanging above our desks of all our schools, showing the signal strengths so we can ensure we're covering every classroom and spot in our schools," explains David Hansberry, District Network Administrator.

Results

Following the Aerohive deployment, Hampton School District has been able to enact some very practical solutions as well as innovative digital learning initiatives across its schools.

The IT team has segmented users by setting up separate SSIDs for teachers, students, and guests as well as separating older devices from new devices with band steering to segment 5GHz band association to avoid channel saturation. The District now has a BYOD policy in place and will soon have a guest network set up with an acceptable use policy agreement upon initial login. Cloud-enabled printing has allowed administrators, teachers and students to easily print at photocopying and laser printing stations, and this feature will expand as the District increases its broadband capabilities with future infrastructure upgrades. Now with Aerohive, the District has visibility into the activity of devices and users, and is able to monitor student use.

Teachers use SmartBoards in classrooms for assessing students and projecting individual student screens to broadcast to an entire classroom. Larger spaces such as libraries and cafeterias also have screencast capability using AirPlay and Apple TVs and digital signage runs over Wi-Fi to broadcast messages, announcements and lunch menus. Administrators also have the ability to evaluate teachers and manage professional development using mobile devices through My Learning Plan software, as well as web-based scheduling software.

Hampton School District is also enacting many creative endeavors using Wi-Fi across its campuses. The robotics team uses Wi-Fi extensively to send messages to robots and with other design programs like Tinkercad. There is an augmented reality sandbox, created by David Hansberry that is managed through a Wi-Fi connection to demonstrate topography or other 3D images. The District has also used tablets for students and staff who had to miss school due to extended illness, using software like Swivl or other live streaming applications to enable participation from home. The district's TV studio live streams video broadcast every week, including using an iPad to run a teleprompter for student broadcasters and an iPhone with AirServer as a second camera.

Seamless Cloud-Managed IT

Now Director of Technology Greg Limperis can roam school hallways on FaceTime and have a completely seamless experience, thanks to smooth transition and coexistence among access points. Aside from offering superior reliability, Aerohive has enabled Hampton School District to embrace cloud-managed wireless networking, with future plans to more effectively leverage Aerohive features, including more robust guest management and possibly consider Aerohive's HiveSchool solution. The District also hopes to install outdoor Wi-Fi access in the next two years, as well as qualify for E-rate funding for adding fiber into the district to increase bandwidth. Hampton School District seems to have come full speed ahead on the technology curve, equipping teachers and students alike for unified mobility and collaborative instruction.



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

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