Spartanburg County School District One

South Carolina School District Launches Flexible and Robust Wi-Fi Solution

Challenges

- Determine comprehensive infrastructure requirements to enable classroom technology initiatives
- Replace unreliable Cisco access points with robust and reliable enterprise solution
- Identify a scalable cloud-managed solution to carry the district into the future
- Solve the complex issue of on-boarding and guest Wi-Fi access

Results

- Successful transition from a BYOD environment to effortless guest management with Aerohive's PPSK solution
- Network performance has exceeded expectations during roll out of 1:1 Chromebook program across all schools
- Cloud-based network management frees up the IT team to best support teachers and students
- Cost-effective Aerohive solution named as district standard with many other schools in South Carolina deploying Aerohive due to success at Spartanburg

About Spartanburg County School District One

Situated in the base of the Blue Ridge Mountains in South Carolina, Spartanburg County School District One serves Spartanburg and Greenville, and the surrounding communities across a geographic area of approximately 100 square miles. The district is home to 11 schools, including six elementary schools, two middle schools, two high schools and a career center, as well as a district office.

> "We wanted our teachers to focus on using technology in the classroom, and not worrying about the reliability of the wireless network. The teachers and students in Spartanburg County School District One are now allowed greater instructional innovation with no limitations. Education is one of the most challenging environments to provide robust Wi-Fi. Aerohive has enabled us to deploy a solution to give us greater collaboration, more network visibility and control, and above all else, a great learning experience for our students."
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> — Dr. Jimmy Pryor
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> Coordinator of Data Management, Analysis, Accountability & Technology, Spartanburg County District One Schools

As one of the top academically performing school districts in the state, Spartanburg District One has received two National Blue Ribbon School awards, two Palmetto's Finest, and two National Schools to Watch as well as many other state recognitions. The district serves 5,100 students with a mission to provide a student-centered education with a planned path for success.

The Challenge

Approximately five years ago, Spartanburg District One identified technology as a major focus. The district faced major infrastructure challenges and tight budget constraints but committed to providing 21st century tools and technology integration to prepare students to be college and career ready. District and school administrative and instructional leaders visited many other districts and schools locally, statewide, and nationally to uncover the components of an instructional-successful technology initiative.

The district soon realized that without the proper wireless infrastructure in place, any 1:1 program was doomed to fail. A detailed needs assessment revealed the schools had "hot spots" of Wi-Fi access in their buildings (i.e. media centers, cafés, and some core classrooms) using Cisco access points. Usage was limited due to unreliability, speed, and availability. Before any decisions were made for types of devices and other details for the 1:1 deployment, the district set about evaluating what wireless infrastructure would need to be in place to meet the instructional needs of the students and teachers.

The Solution

The district explored possible network solutions, including conducting evaluations of Aruba, Cisco, Meraki and Ruckus. Aerohive was chosen for the cloud-managed component and for being overwhelmingly reliable and robust. While the district IT team worked tirelessly to bring the wireless network infrastructure up to where it needed to be over three-year period, from an end user perspective, the students, teachers, and staff simply began to see Wi-Fi that worked. As the Wi-Fi reliability began to improve, teachers and students began to view wireless technologies as a valuable tool for instruction and learning rather than a hurdle in the classroom to overcome.

During the time Spartanburg District One was conducting comprehensive upgrades, Aerohive was not yet under state contract. It speaks to the quality of the Aerohive solution that the IT team fought hard to establish Aerohive as the district standard before a contract was in place. Since that time, the district has used E-rate funding to deploy access points in every classroom and ensure reliability for 1:1 instruction.

Spartanburg District One made the instructional decision to become a blended environment in order to provide students experience in Windows, MacOS, iOs, Android, and Chrome operating systems and tools in preparation for students to be college and career ready. The district chose Chromebooks for the 1:1 initiative and provided teachers and students in grades 3-12 with a device. Before adopting Chromebooks across all schools, the IT team spent considerable time providing support for any and every device in a BYOD environment. 1:1 allowed the district to embrace a standard platform for all students and to ensure consistent digital instruction in classrooms. The district spent considerable time and training for teachers on digital instruction and launched Google Apps for Education across all schools.

Spartanburg District One deployed Aerohive AP121, AP230 and AP130 access points and the district is testing Aerohive AP550 access points for possible use in the near future. The district uses HiveManager NG Virtual Appliance on- premises. Since the IT team has begun transitioning away from a BYOD environment, it is now using Aerohive's Private Pre-Shared Key (PPSK) feature to better manage guests and give greater control and management for on-boarding devices. Apple devices, such as Apple TVs, are managed through JAMF, an Aerohive solution partner.

Results

The district is a champion for blended learning and 1:1 success. Schools have begun state testing over the wireless network, digital signage is running over Wi-Fi, graduation ceremonies are wirelessly broadcast in overflow rooms, and classrooms are set up with collaboration stations for up to five students at a time. Tools like Google Hangout allow students to collaborate with other students at other schools across the district. Wireless and mobile technology have broadened the possibilities for collaboration that previous wired computer labs could not achieve.

The ubiquitous nature of the Wi-Fi infrastructure has allowed the district to begin deploying 1:1 devices for kindergarten through second grade using a touch screen convertible Chromebook device requiring no further Wi-Fi upgrades. Students and staff are using Google's G Suite of education tools and applications for increased classroom collaboration, and the district recently hosted a Google symposium as a showcase for blended learning for other educators in the state.

As one of the early adopters of Aerohive in the state, now a majority of the school districts in South Carolina have deployed Aerohive based on the success at Spartanburg District One. The IT team touts the success of the Wi-Fi implementation as one of its greatest achievements. Recently, the State Superintendent of Education visited Spartanburg District One after announcing Campobello Gramling School as a recipient of a Palmetto's Finest Award, the top honor in the state of South Carolina. The district can be proud for its recognition of incorporating technology and providing opportunities for personalized learning.