



# Lee County Public Schools

## One of Largest School Districts in the Nation Selects Aerohive for Cloud-Enabled Wireless Network

### Challenges

- Move away from controller-based WLAN that was becoming increasingly cumbersome to manage and cost prohibitive
- Enable schools to support BYOD and increasing density in one of largest districts in the United States
- Provide simplified network management to lessen burden on IT team managing wireless performance across 120 schools

### Results

- Cloud-based wireless platform with enterprise features ensures airtime fairness, load balancing and mitigates network threats
- Robust wireless network easily handles density and challenges such as multicast video
- Schools now able to complete roll out of 1:1 programs for digital learning with comprehensive Wi-Fi in place across entire District

### About Lee County Public Schools

Lee County Public Schools, located in the ninth largest school district in the state of Florida, is home to more than 85,000 students and 12,000 employees. The District serves students in grades K-12 across 120 schools, and has received numerous accolades for excellence in education, including being awarded the National Blue Ribbon School of Excellence at the Sanibel School, designated a Microsoft Certified High School at Dunbar High, and modeling one of the top International Baccalaureate Schools in the world at Fort Myers High.

The District is the 33rd largest school district in the nation and manages a budget of 1.3B and is the second largest employer in the county. The IT department supports a wide variety of diverse technology and strategic initiatives, providing development, deployment and maintenance.

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—Dwayne Alton

Information Technology Support Director,  
Lee County Public Schools

### The Challenge

Lee County Public Schools had a large-scale wireless solution in place from Cisco, which was acquired as controllers first hit the market several years ago. The District needed to expand its wireless network, and the controller-based network required significant investment and became harder to manage. Managing the controller-based network was a tremendous task and one full time staff member was required to manage Cisco licensing alone. The District had several short-term fixes, but once the advancement of wireless technologies began to outpace the District’s controllers, the IT team needed to urgently look at new solutions.

In addition, the District was looking ahead to future technology initiatives, including a 1:1 rollout that was scheduled throughout all schools. Since the District first evaluated its wireless architecture, many changes were anticipated to come on the horizon, including a BYOD program and accommodating ever-increasing density. The District also had key concerns with video distribution, as Lee County Public Schools is a heavy user of multicast and unicast video technology, from running its own TV station, to hosting video conferencing and webinars.

## The Solution

Lee County Public Schools evaluated Cisco, Aruba, Meru, Ruckus and Aerohive, and underwent extensive testing for each solution, choosing Aerohive because it removed the controller entirely, and had superior architecture for handling failover and airtime fairness. Also, additional bandwidth could be deployed as needed for a future-proof solution. The District worked with resellers United Data Technologies and CDW-G in the deployment and implementation.

"When a controller had a problem, it affected dozens of our campuses," said Dwayne Alton, Information Technology Support Director. "We found ourselves managing the management system, instead of focusing on performance of our network. Ultimately, the choice was simple. Aerohive provides superior capabilities at a comparable price for Lee County Public Schools. We recognized Aerohive was the future of wireless."

Lee County Public Schools uses Aerohive AP121 and AP330 access points, with plans in its roadmap for implementing 802.11ac access points in the near future. Currently, the District has deployed approximately 6,000 access points among all 120 schools and administrative offices. The District uses HiveManager Online for cloud-based network management, essential for a district of this size which is continually upgrading and reconfiguring access points. Aerohive HiveOS integration with active directory allows the IT team to provide an instant RADIUS authentication server. Other key aspects of the Aerohive solution include threat management capabilities, load balancing features, and airtime fairness to ensure reliability.

The District has multiple SSIDs, including a guest network that is accessible for vendors and parents. An internal student network and network for staff have high security protocols and settings to allow greater bandwidth.

## The Results

In the past year, the District has increased the number of devices significantly as it begins its 1:1 rollout. Lee County Public Schools has over 60,000 Windows PCs, over 2,000 iPads and approximately 3,500 Chromebooks, as well as large numbers of mobile labs as it continues its transition from paper to digital-based learning. The District is also currently in the process of deploying an additional 18,000 Chromebooks onto the network. Without a robust wireless solution in place as the primary access layer, it would not be possible for the District to meet its digital learning and technology aspirations.

"We never see performance issues on our network and we can respond quickly having a cloud management wireless platform in place," explains Alton. "We jumped in with Aerohive much earlier than a lot of other districts, but we have never looked back. Instead of spending our time on making things work, we can now focus on helping our teachers and staff use the resources we have at hand. As we work to meet future challenges and goals, we are grateful to have Aerohive as a technology partner who will help advance our learning goals."

Throughout many departments and classrooms, changes have been made to convert previous paper-based processes to digital methods. The District is in the process of switching to Video on Demand for its TV station, which will be run exclusively over Wi-Fi. Fourth and fifth grade students now take writing exams on computers. The majority of statewide assessment testing must be conducted online by 2017 across all grade levels.

Wireless technologies have positively impacted classroom activities, and digital learning is prevalent in all schools. STEM engineering labs create programs on iPads, the special education department uses a variety of apps to aid with student communication, ESL classes use devices for language learning, and a majority of students are able to take home their devices to work from home. Students use Google Classroom to manage documents and Compass Learning for digital curriculum.

Administration and staff can now roam the school campus with devices to conduct teacher evaluations, safety personnel can inspect classroom and upload data, and security operations are monitored through wireless surveillance systems. For training sessions teachers and staff now sign in with mobile devices, and courses are assigned passcodes with a QR code. Webinars and video conferencing at the central office are also run over Wi-Fi. Other employees, such as transportation services, use mobile time clocks to record working hours.

## A Model for Wireless Networking

In the last year, Lee County Schools has experienced rapid growth and unprecedented change. The District hired a new superintendent, embraced a BYOD program, continued its rollout of 1:1 across all 120 schools and 85,000 students, and planned for increasing density as it moved away from a controller-based wireless environment. The District is often a showcase for its datacenter and network design as many of its operations are extremely sophisticated.

Having Aerohive as a solution partner for its WLAN has allowed the IT team to leverage the enterprise features and rely on HiveManager Online for remote and simplified management of the network. Lee County Schools plans to apply for E-rate funding to expand its network in the near future, and with a firm network architecture in place, the District is well-poised to succeed.



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

Aerohive Networks, Inc.  
330 Gibraltar Drive  
Sunnyvale, CA 94089

toll free 1-866-918-9918  
phone 408-510-6100  
fax 408-510-6199

www.aerohive.com  
info@aerohive.com  
CS-LCPS 051315