Pennsylvania School District Powers Campuses and Creates New Technology Curriculum

Wayne Highlands School District:

District Population: 20,870

Industry: K–12 Education

Location:

United States

Wayne County, Pennsylvania

Solutions

· Created new wireless network to support new applications

· Provided IT staff with ease of management and control over wireless system

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Director of Technology, Wayne Highlands School District

Challenge

Wayne Highlands School District is located in Northeastern Pennsylvania in Wayne County in the Pocono Mountains. This region receives a significant amount of tourism, and many families in this rural environment rely on seasonal tourist activities for income. Wayne County borders both the New York state line and the Delaware River. At 465 square miles, the school district is approximately the size of a third of Rhode Island.

Due its size and its rural profile, many schools in Wayne Highlands require high-performing technology. However, getting fiber optics to rural areas has historically been a challenge for the school district. Wayne Highlands' director of technology, Scott D. Miller, arrived at the school district in 2014 and made it his mission to redesign the district's technical infrastructure and bring more technology to education.

"Two years ago the district had many goals we wanted to realize," says Miller. "We wanted to implement a one-to-one learning environment, and we wanted to provide robust, reliable service to students who might not have a connection at home; however, our

existing network was 10 years old, and could only support basic coverage."

Collaborating with administrative and educational leaders, Miller put together a vision for a stronger, outcomes-oriented education technology environment from the ground-up. Wayne Highlands needed a new wireless network and began to look for a holistic solution that could simplify otherwise complex configuration changes and provide a unified management interface.

Solution

Planning a new classroom

The vision came to life when Miller and his colleagues discussed the district's usage of E-rate funding. The first year after the E-rate program was modernized, Wayne Highlands was able to leverage Category Two funding for a new, comprehensive wireless environment. Since part of Wayne Highland's vision was to become a "smart" school district with multiple touch points in the classroom, E-rate was the answer to bolstering this more technological environment.

"Our largest goal after kicking off our search was to give students and teachers cutting edge technology, no questions
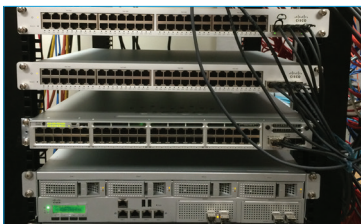
Deployed 320 access points across school district classrooms

Eliminated long-distance calling and additional transportation costs

Launched a one-to-one learning environment

Integrated new technology applications into curriculum and learning

asked," says Miller. "In addition to our one-to-one goals, we wanted to make sure that K to 8 children had valuable technology—in particular, wireless laptop carts—to give them more exposure to smart operating systems."

Wayne Highlands had already established a "flipped-learning" program in its classrooms, where homework is done in the classroom, and reading and lessons (such as video-taped lectures) are conducted at home. This approach, when blended with a strong wireless network provides students with a more collaborative environment to solve problems and enables teachers to engage students more deeply.

Finding the right platform

Knowing that Wayne Highlands needed solid wireless support, Miller traveled to K–12 education technology conferences and noticed the Cisco Meraki solution–cloud-managed networking that delivers out-of-the-box security, scalability, and management to enterprise networks. These sessions stuck with Miller, and because he worked with Cisco for 20 years in his prior role, Miller was confident that Cisco Meraki technology was the best market offering for the school district.

"We needed a long-term commitment from a technology partner," says Miller. "In reality, the genius of a strong cloud-based dashboard is that you can troubleshoot with one click and move on (even from a distance), which is extremely powerful. We have a small IT team, and Cisco Meraki stood out as a solid system."

Miller also valued the role that Meraki support staff played as the school district looked for a new network. Starting from the first meeting at the K–12 conference, the Cisco Meraki team worked closely with Miller on Wayne Highlands's technology vision. Miller greatly valued the connection Cisco®

people and Cisco culture made on the school district.

"The promise of Cisco Meraki was to eliminate an entire day of staff administrative activities, but the real win was that Cisco's personal touch matched the expectation we had for hands-on support."

After the school district evaluated the Cisco Meraki solution and its pricing completely, it was clear that the system was the right choice for Wayne Highlands. In the end, the school district acquired Cisco Meraki access points, switches, security appliances, and enterprise mobility management to supply students and teacher with a robust wireless network—all while providing IT staff with unparalleled visibility, ease of management, and control.

Results

Wayne Highlands began to experience benefits from its new wireless platform before the product arrived in Miller's office. Thanks to the Meraki cloud-based dashboard, Miller and his staff began to program the district's core switching before the product arrived. Miller uploaded configurations to the dashboard, ensuring that the switches were ready to launch when the products arrived in April 2015.

"At the very first month, as soon as our switches were connected, the core network came alive," says Miller. "It was instantaneous—and we were ready to go."

By July 2015, the new network was completely ready for the 2015–2016 school year. Maintaining switches from the cloud meant that instead of laborious travel through the Pocono Mountains, Miller was able to manage the systems no matter his location, and his technicians could plug in necessary equipment from the other end.

Wayne Highlands deployed 320 access points—one in every classroom—to achieve high-density bandwidth wherever learning

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For More Information

For more information about our solutions, visit the following websites:

Cisco Meraki solutions: http://www.cisco.com/go/meraki

Cisco IP telephony VoIP: http://www.cisco.com/c/en/us/tech/voice/ip-telephony-voice-over-ip-voip/index.html

Cisco video surveillance IP cameras: http://www.cisco.com/go/videosurveillance

was taking place. Cisco Meraki radios further enabled this process by taking bandwidth requirements and preventing any and all bottlenecks. On top of this new classroom functionality, Miller and his team deployed voice over Internet Protocol (VoIP), eliminating the practice of long-distance calls and extra transport costs.

From an IT perspective, Miller and his team refocused on other priorities. Now, because access to the Internet is fast and reliable, most of the team's time is spent discussing new learning applications and curriculum, and less consumed with network issues.

"While we're thrilled with what our staff can do, the benefits extend way beyond our team," says Miller. "Our new system allows us to call a home and touch base with a faculty member, staff member, or student's family. The return on investment for children is just remarkable. Our students no longer have to plug in to the network. Now, they can be wireless instantly."

Inside the classroom, learners at all grade levels have benefited from Wayne Highlands newly controlled network. Faculty have incorporated new, vigorous education technology curriculum into K–12 lessons and have added online videos, digital worksheets, and remote access to instructional content. With these new benefits, elementary learners can now trace letters and read stories remotely.

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Next Steps

Next up for Wayne Highlands is an expansion of the school district's one-to-one program, which is being fueled by the new network. In addition, during the 2016–2017 school year, Wayne Highlands will begin a large overhaul of its IP video surveillance system to ensure that students are always safe on campus.

"While we are making progress in new areas, like one-to-one learning and security, our primary focus is ensuring that our students have what they need to succeed," says Miller. "We want to provide our students with everything that's available in technology and curriculum, and allow them to make great decisions for their future, and ultimately, their career path."

Products and Services

Wireless

· Cisco Meraki MR Series Access Points

Switching

· Cisco Meraki MS Switches

Security and VPN

· Cisco Meraki MX Security Appliances

· Cisco Video Surveillance Manager

Mobility Management

· Cisco Meraki Systems Manager

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