

School District Installs Video Surveillance to Increase Safety



Cisco provides Warren County Public Schools with advanced IP-based camera solution to replace analog systems.

Executive Summary

Warren County Public Schools

- **Industry:** K-12 Education
- **Location:** Front Royal, VA
- **School County Size:** 5300 students across five elementary schools, one middle school, two high schools and one technical center; 801 faculty members, staff, and administrators

CHALLENGE

- Provide safe and secure learning environment
- Poorly designed, disparate analog video cameras system and lack of video cameras at some locations
- Decrease long-term maintenance and resource fees while increasing security

SOLUTION

- Install Cisco unified, IP-based video surveillance system across all nine locations
- Leverage existing Cisco network, gigabit fiber connections, and switching infrastructure

RESULTS

- Enhanced student safety and security
- Reduced overall maintenance and resource costs
- Increased camera footage storage capacity from 14 to 30 days

Challenge

Spanning a total of 219 square miles, Warren County is located in rural northwest Virginia between the Blue Ridge Mountains and the intersection of the north and south forks of the Shenandoah River. The county is rich in history, and has an economy based on agriculture, manufacturing, and natural resource development. Today, Warren County is widely known for its major tourist attractions including the Shenandoah River and National Park, Skyline Drive, and the Skyline Caverns.

Warren County is also home to a public school system consisting of five elementary schools, one middle school, and two high schools. To help ensure its 5300 students receive an education in a safe and secure environment, Warren County Public School officials made the decision to install a new video surveillance system at each location.

Although its two high schools had existing pan-tilt-zoom cameras in place, school officials identified significant gaps in coverage, which left some security concerns unaddressed. The existing cameras did not have the functionality to capture incidents that could occur in some hallways and building entrances/exits. In addition, the cameras were from different vendors, which de-centralized the management of camera output. As for the elementary and middle schools, no cameras were in place, and school officials felt it was a necessity to deploy a solution to assist with monitoring traffic in and out of the buildings.

“The system was so easy to use once phase one was deployed that the decision to continue with Cisco at the newly renovated Warren County Middle School was very simple.” –Melody Sheppard

In June 2008, administrative and information technology (IT) officials met to discuss each school’s needs, technology options, and eventual camera placement. Following these meetings, in November 2008, Warren County issued a request for proposal (RFP) for analog cameras. By February 2009, officials had received a number of different vendor proposals.

The Cisco and ABS proposal for IP-based video surveillance cameras stood out from the rest. The proposal indicated the value of the Cisco IP camera technology at a price similar to that of analog cameras. The proposal also delineated how the cameras can be installed leveraging Warren County Public Schools’ existing Cisco network, gigabit fiber connections, and switching infrastructure. .

As a result, Warren County opted not to purchase analog camera technology that was available ten years ago, but rather Cisco’s IP-based advanced solution that is sustainable and will be supported well into the future.

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IT Director, Warren County Public Schools

Solution

Working with Cisco and ABS, Warren County Public Schools developed a two-phased approach to implement the new Cisco® IP video surveillance solution at each of its elementary, middle, and high school locations. In the first phase, the existing cameras at both high schools were replaced. New cameras were also installed at the five elementary schools in locations where students, community members, and parents enter and exit buildings. As result of the success at these schools, during phase two, Warren County Public Schools deployed an additional 100 cameras at the newly renovated middle school, which was constructed on the site of the former historic Warren County High School.

Cisco and ABS entered as strategic partners to determine the design, location, and configuration of all the cameras and existing network servers, as well as addressed any power issues. Key members of the administrative staff were trained by certified technicians on how to operate the cameras, make setting changes, and personalize views. Additionally, Cisco and ABS worked with the schools’ resource and security officers to help ensure they used the cameras as effectively and efficiently as possible.

“Our resource and security officers from each school have nothing but great things to say about the Cisco cameras,” says Melody Sheppard, IT director for Warren County Public Schools. “They find the clarity to be much better and are seeing things they wouldn’t have caught before. As an incident is happening, our new cameras capture the entire incident, not just the panned portion like in the past.”

Because ABS is a full-service Cisco networking, IP telephony, and wireless partner, and a DCJS certified physical security company for the Commonwealth of Virginia, in phase one, Warren County was able to install a total of 200 fixed IP-based cameras by November 2009 without confronting any regulatory issues. This was a mere seven months after the vendor selection was completed. Phase two, adding 100 additional cameras at Warren County Middle School was also a smooth process.

“Cisco and ABS did a great job educating us on how IP video surveillance functions as an application on our existing network, allowing us to leverage and enhance our current investment in Cisco technology.” –Melody Sheppard

In addition, leveraging the existing Cisco network allowed Warren County to create a unified surveillance system that can be managed from any computer connected to the Warren County Public Schools network, depending on the access credentials of the user. Today office administrators and security personnel with the proper access credentials are able to view all the footage obtained by the fixed cameras through this unified management interface.

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Product List

VIDEO

- Cisco IP video surveillance
- CIVS-MSP-4RU (4RU VSOM server), deployed four in total
- CIVS-IPC-2421 (indoor dome cameras)
- CIVS-IPC-2531V (outdoor dome cameras)
- 2960S PoE switches when extra network connectivity was required

Results

With the Cisco video surveillance system in place, Warren County has positively enhanced its student safety and security. Resource and security officers are now able to monitor all points of entry into the schools, thus eliminating the number of intruders on school property. In addition, the deployment of the cameras reduced speeding in student parking lots, vandalism of school property, and loitering.

“The new system has increased safety across the county, keeping people from doing things they shouldn’t be doing. The community as a whole is aware of the cameras, preventing negative behavior on school grounds,” says Sheppard.

For the first time, Warren County Public Schools owns its video surveillance system in its entirety, creating a long-term reduction in maintenance and resourcing fees. School officials no longer need to rely on outside technicians to replace or install new cameras. With the Cisco solution, they are able to easily add cameras to the existing system when they feel it is appropriate or necessary. And, because the system is IP-based, it will be viable well into the future. School officials will not need to allocate funds towards replacing antiquated equipment on an annual basis, but rather put that money toward other programs for students.

School administrators, staff, and security personnel with the proper directory access credentials can view the footage from the cameras, regardless of their location on the network. Previously these same individuals could only view the camera output from a single school location. The easy-to-use system is scalable to meet the needs of Warren County. End users can record footage and email it to others within the school district without having to use proprietary software. Furthermore, storage capacity for footage has increased significantly from 14 days with the outdated analog cameras to 30 days using the IP-based cameras.

“We are thrilled with our new cameras. The functionality is far superior to what we originally asked for in our RFP, and we are confident we will be equally as happy with them ten years from now,” says Sheppard.

Next Steps

Warren County Public Schools will continue to deploy the camera system at any new schools included in the district plans and potentially increase the camera count at the high schools to further support its surveillance needs.

For More Information

To find out more about Cisco K-12 video surveillance solutions, go to:
http://www.cisco.com/web/strategy/education/SafeSecure_RiskSchools.html.

