



Helping protect students and improving school safety with a holistic security system

Motorola Solutions & Dorchester County Public Schools case study

Home to over 32,500 residents, Dorchester County is a vibrant community and the largest county on the northeastern shore of Maryland. This diverse county houses several public schools encompassing a career and technology center, two high schools, two middle schools, six elementary schools, a pre-kindergarten through eight-grade school and two positive change schools.

Dorchester County Public Schools (DCPS) strives to make a wide range of educational opportunities available for its population, from pre-kindergarteners to high school students and adults. The Dorchester Career and Technology Center receives students from high schools and offers both academic and career skills, from masonry, electricity and auto technology to culinary arts, cosmetology and interactive media production. In addition to educational resources and programs, the county's Family Support Services Resource Center for Families and Schools is designed to support children and adults with disabilities.

Despite the county's numerous programs and initiatives to improve education and economic conditions, social issues in Dorchester County continue to impact schools, leading to decreased quality of education and compromised student safety. External issues can be difficult to tackle for both the larger community and schools, and identifying what happens in the community and preventing the same incidents from happening inside schools are crucial.

Customer

Dorchester County Public Schools
MD, USA

Industry

Education

Video security solutions

- Avigilon security cameras
- Avigilon Unity Video
- Avigilon Unity Access
- Motorola Solutions Concealed Weapons Detection system

Radio communications solutions

- CP200d Portable Two-Way Radios
- MOTOTRBO R2 Portable Two-Way Radios

Benefits

- Avigilon security cameras, including weatherproof cameras, help operators view activities at all times and in all weather conditions to prevent conflicts from escalating.
- Avigilon Unity Video software aids security team in launching quick actions when students are seen with weapons on school grounds.
- Motorola Solutions radios with high-quality audio help keep school staff informed of unusual activities and enable immediate reporting of incidents on school property.

Challenges

Detecting weapons on school grounds

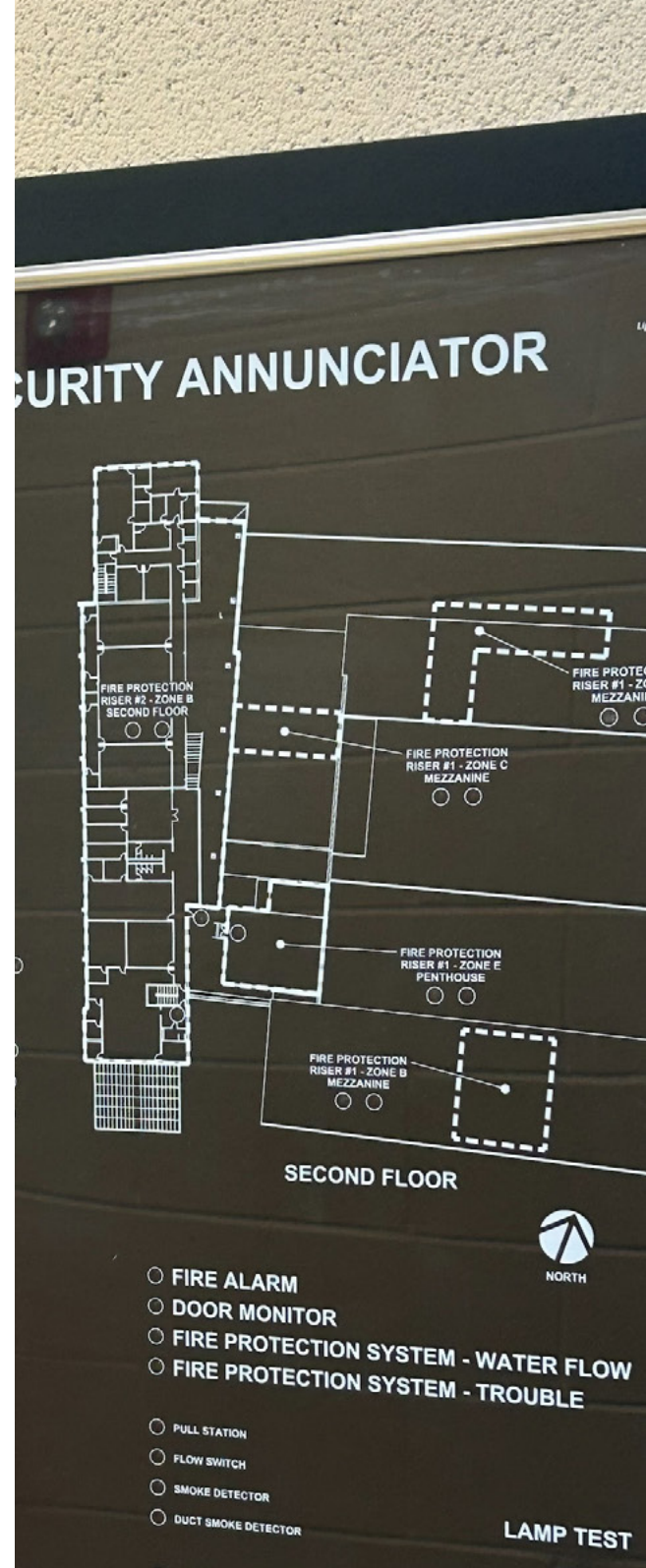
With 14 schools, Dorchester County is responsible for ensuring the safety of nearly 5,000 students. The county also faces the challenge of declining student enrollment due to socio-economic issues in the community. Unfortunately, friction in students' homes are being replicated inside schools, leading to incidents involving aggression, illegal substances and even weapons.

In the case of weapon-related incidents, there were no weapons detection systems in place or an access control system that could prevent unauthorized individuals from entering school properties and potentially causing harm. DCPS recognized that it was paramount to develop a system that allows security teams to see when students bring weapons into school property.

Student conflicts escalating to significant incidents

Community issues in Dorchester County often became incidents that take place in public schools, with vandalism, vaping and bullying cited as main concerns, along with accidents like slips and falls, and fender benders that occurred in parking lots.

When disturbances occurred, DCPS' school staff struggled to effectively communicate crucial information through radios. The previously used radios did not have clear audio, and the old structures of the schools did not allow radio signals to be transmitted or received, leading to slow response times when incidents happened. The schools also grappled with recalling and recreating events and identifying the root causes that could prevent them from happening again. It was also challenging for the schools to analyze video footage and present it as evidence for investigations due to the low video quality from legacy security cameras.



We were lacking when it came to communications and visibility. Getting 38 new radios from Motorola definitely improves our communication and helps us respond to incidents the minute the staff lets us know of issues.

– Mike Richardson, Director of Safety and Emergency Management at Dorchester County Public Schools





The solution

Holistic security and improved communication systems

A significant incident that took place on the school grounds of one of the Dorchester County schools spurred the move to re-evaluate the existing security infrastructure and install new systems that allow school staff and operators to take swift action when needed. The county saw the serious need to improve visibility and utilize radio systems with high-quality audio to enable staff to communicate clearly and report issues instantly. These urgent needs led DCPS to choose Motorola Solutions and Avigilon Unity as reliable security solutions.

After a thorough audit of their previous security systems, DCPS replaced existing security cameras with Avigilon cameras to allow school security teams to observe all areas of the school in detail. The schools also installed Avigilon Unity Access to help ensure that only authorized individuals can enter specific areas of the school, while offering the convenience of frictionless access with badge credentials rather than the previous key system. In addition to Avigilon security cameras and access control systems, Dorchester County Public Schools also utilized Motorola Solutions' radios for clear, uninterrupted communication between staff.

When school incidents happen, every second counts. Motorola Solutions' integrated security solution allows operators to know what happens at all times, with instant alerts to keep staff informed the moment irregularities are detected. This significantly sped up response times and prevented incidents.

“With Motorola Solutions, all our security systems are seamlessly integrated, from the Avigilon cameras to access control. I wish I had something half this great when I was a cop, doing investigations. No other system has impressed me as much as Motorola Solutions.

– Mike Richardson, Director of Safety and Emergency Management
at Dorchester County Public Schools



The benefits

Improved visibility to prevent student conflicts

One of the main drivers for the Dorchester County Public Schools to choose Avigilon security cameras is the high-quality video. With high-definition video and the Avigilon Unity Video software, school security teams can observe occurrences in detail, clearly track the sequence of events, immediately recall and retrace incidents, and identify the root causes. Gaining clarity on what happened can significantly help school administrators launch effective action plans that can prevent incidents from occurring. Clear video footage also helps DCPS identify the individuals involved in incidents like fender benders and can serve as legal evidence in investigations.

When it comes to observing school activities and ensuring that no harmful events take place, Avigilon security cameras' advanced AI-powered analytics enable security teams to take swift action the moment abnormalities are identified. Unusual Activity Detection immediately alerts school security teams of vandalism, bullying and other atypical incidents.

Avigilon's weatherproof security cameras also help school operations run smoothly and observe events, such as football games that take place outdoors, in various environmental conditions. DCPS found that the presence of security cameras were proven to deter criminal behavior. Overall, the security cameras help provide school security teams with a holistic view of the site, improving decision-making.

Decreased number of school incidents

With school weapon-related incidents, the problem often stemmed from weapons being detected when it was too late. Because of this, DCPS installed Avigilon security cameras along the school perimeters to enhance visibility. The cameras, integrated with the Avigilon Unity Video software, allowed security teams to see when students have weapons with them as soon as they enter school grounds and instantly launch protocols that correspond to this specific security scenario. As a result, DCPS reported a decrease from ten weapon-related incidents between 2022 to 2023 to only one incident between 2023 and 2024 after installing Avigilon security cameras.

When it comes to security, communication is key. School staff and security teams must be able to keep each other informed when irregular movements are detected, as what seemed like minor occurrences could snowball into bigger incidents. The use of radios with high quality audio enabled school staff and security teams to seamlessly communicate, helping to instantly launch the right actions.





Conclusion

With the installation of high-quality security cameras and access control, Dorchester County Public Schools has improved its ability to observe and respond to issues in schools, significantly decreasing the number of school incidents. The use of radios also facilitated seamless communication and enabled quick and effective responses to prevent incidents. With the systems combined, the integrated solution provides a holistic approach that not only reduced weapon-related incidents, but also improved overall school security. By addressing both external and internal challenges, DCPS has created a safer space where students can learn and thrive.

Looking ahead, DCPS continues to explore more collaborations with Motorola Solutions, particularly by integrating the current Motorola Solutions and Avigilon technology with Rave Mobile Safety's panic button and mass notification solutions. In areas where security cameras are not suitable, DCPS is also exploring the possibility of implementing HALO Smart Sensors to detect vaping, smoking and abnormal noise levels that can indicate student conflicts such as bullying or fighting, and school incidents.



We do investigations almost daily, so I'm always looking at security cameras to see what happens in certain areas. Our current Avigilon cameras are amazing. It's also integrated with other systems, making it easier for us to do our jobs.

– Mike Richardson, Director of Safety and Emergency Management at Dorchester County Public Schools





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