MAKE THE
WORLD SEE

SAFEGUARD STUDENTS WITH NEW TECHNIQUES AND TECHNOLOGY

A secure school environment is essential for student learning.
Discover techniques and technologies to help your K-12 campus succeed.

milestone

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Maintaining the safety of students and staff is the highest priority for any school administrator. However, gathering a diverse range of students, staff, and campus visitors together in one place poses a complex set of security issues for consideration. People generally expect and trust education administrators to provide a safe environment for learning. Moreover, maintaining readiness for any incident is a shared expectation by the public, government, and students.

You can move your school campuses from prepared to proactive with the video technology and security best practices we've outlined here. Extending your school's video surveillance coverage and providing easy accessibility to video data through video analytics can give you a better picture of what is happening on school grounds. Improving your incident investigation helps you to resolve emerging situations promptly. Furthermore, new security sensors can monitor air quality and safety conditions, alerting staff when students violate vaping rules or fights occur on campus.

Raised Expectations

Echoes of the stories from Columbine, Sandy Hook, Parkland, and Uvalde, along with other highly-publicized school shootings, have raised security expectations by the public. As a result, many question school administrators' responsibilities before, during, and after school security incidents. Additionally, local law enforcement agencies enter the discussion with their own opinions and experience to assist schools in protecting students. With over 56 million students in nearly 132-thousand K-12 schools in America, people across the country share the concern for student safety.

While the worst-case scenario looms large in the mind of the public and school administrators, the reality is that common security issues occupy most of a school security officer's time. These mundane issues include facility infrastructure monitoring, perimeter and access control, traffic flow, and multi-site campus coverage with limited staff. In addition, schools potentially have a security footprint that needs to expand and a limited budget. While not nearly as publicized, these day-to-day security concerns need addressing to maintain a safe environment ready for the worst-case scenario. Of course, having a risk plan is necessary. Furthermore, having the right technology in place to address these common security concerns greatly optimizes efficiency for your teams.

High Profile School Shootings in the US

Uvalde, TX - May 24, 2022
Robb Elementary School

22 fatalities*
18 injured

Santa Fe, TX - May 18, 2018
Santa Fe High School

10 fatalities
14 injuries

Parkland, FL - February 14, 2018
Stoneman Douglas High School

17 fatalities
17 injuries

Newtown, CT - December 14, 2012
Sandy Hook Elementary School

28 fatalities*
2 injuries

Red Lake, MN - March 21, 2005
Red Lake Senior High School

10 fatalities*
7 injuries

Littleton, CO - April 20, 1999
Columbine High School

15 fatalities*
24 injuries

*Including shooters and related incidents, such as family members killed.

Sources:
List of school shootings in the United States by death toll

Timeline of school shootings since Columbine

Raised Expectations (Continued)

As a school administrator or security professional, one must consider what it takes to move beyond preparedness into a state of proactivity. Foresight allows your security stakeholders to step up campus and school district readiness to detect incidents early, allowing security teams an opportunity to respond, intervene, and control the outcome of disruptive incidents on the campus. Proactive intervention is the goal of any well-planned security environment.

K-12 educators are moving beyond deploying passive security surveillance. Many schools now opt for proactive early detection, notification systems, and perimeter access control. Furthermore, the most proactive schools are extending their security infrastructure and improving forensic investigation of incidents to provide rapid remediation and improved protection for students and faculty. For example, early adopters of proactive tools depend upon video analytics and artificial intelligence to gain an edge and get ahead of any security issues that might come up on their campuses.

Proactive intervention is the goal of any well-planned security environment.

Video Security Surveillance

Many schools in the USA and around the world use some form of video security surveillance to monitor activity on campus. However, proactive schools may use some of the following techniques:

- **Next-generation security technology products extend a school's limited security infrastructure and resources.**
- **Artificial intelligence mines video data for specific insights that might otherwise be unavailable.**
- **Security alerts can automatically trigger notifications so personnel can respond to incidents immediately.**

Open platform hardware and software solutions can work seamlessly together, making the security operator's job easier by integrating systems. In addition, Milestone Systems believes an open architecture leads to better choices and outcomes for our customers.

At Milestone, we know schools. Moreover, we are an open platform company. As a result, we strive to help you centralize your security operations across campuses and experience enhanced flexibility by integrating our software with numerous tools offered by our technology partners.

Milestone's flagship video technology is XProtect® video management software (VMS). With open platform architecture, XProtect allows your school campus or district to grow with video technology. Additional products, such as Milestone Kite™ and XProtect on AWS, give school administrators the flexibility to leverage different platforms delivering cloud capabilities quickly.

Our innovations in security help school districts centralize their operations across campuses, providing an overview of multiple sites with a flexible and scalable open platform. Furthermore, modern platforms offer remote configuration and management of resources.

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"Consolidating resources is not only important for universities and colleges, but also for primary and secondary schools. Now we're seeing school districts with many disparate systems from campus to campus. That's an inefficient way to operate. We propose bringing those campuses under one platform for the entire school district. With a consolidated multi-site security architecture, you have a better overview of your enterprise. This is a modern, holistic approach to security in K-12 schools."

Brad Cary
Business Development
Manager for Education,
Milestone Systems

Video Analytics Give Better Insights Into Your Campuses

Milestone security experts recommend video surveillance technology to blend with your security infrastructure and provide advanced capabilities. For example, video analytics depend on an open video technology platform working with security cameras, giving you deeper insights into your aggregated video data. In addition, Milestone works with the cameras you own to provide new data you may have been missing. Moreover, we work with camera manufacturers providing edge analytics in their devices, communicating insightful information to you via the XProtect platform.

Here are some of the benefits of utilizing video analytics in a holistic security solution:

- **By using video analytics, you gain a better picture of what exists in your stored video footage.**
- **Operators can quickly find evidence and provide real-time alerts to your security operators.**
- **Extend the capabilities of your security personnel in after-action forensic investigations.**

These are just a few video analytics available through our certified technology partners, and they are proven to integrate into Milestone XProtect.

People & Object Search

Analytics enable operators to search for objects in recorded video, such as differentiating people or vehicles, searching for color, determining where activity is concentrated, and more.

Traffic Monitoring

Analytics for traffic include direction of travel, vehicle counting, detecting parked cars, and more. For example, you can efficiently monitor bus activity, parking lot traffic, and wrong-way driving.

Facial Recognition

Facial Recognition identifies and authenticates specific people by their facial features from video images. This tool helps you identify unauthorized or suspicious people quickly.
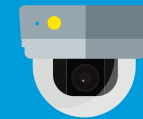
License Plate Recognition

LPR is an advanced analytics solution that reads, documents, and matches vehicle license plates without a human operator. The data captured enables a proactive response or assists with forensic investigations.

Access Control

Controlling the entry and exit of people around campus can include restricting access to some areas, such as server rooms or potentially dangerous buildings.

CCTV

Video surveillance is a force multiplier for security teams. With cameras in critical locations around campus, security teams can proactively monitor activity and respond when incidents are detected.

XProtect®
Rapid REVIEW

Video Analytics Insights (Continued)

Milestone video technology facilitates a rapid response. For example, forensic investigations become more efficient with XProtect Rapid REVIEW, allowing quick search and review of aggregated video data. In another example, Rapid REVIEW offers multi-camera searches based on an expanding suite of analytic search filters across multiple cameras so users can quickly find the evidence and information they need.

Rapid REVIEW Video Synopsis is a powerful display of results that simultaneously presents the video of people and objects within a compressed timeline. Video Synopsis results in a dramatically shorter video segment that fully preserves the viewer's ability to analyze the scene, enabling a drastic reduction in review time.

Users can customize a search from any of the connected surveillance cameras on the security system and choose from among several identifying options:

- **Time Range**
- **Type Of Object Class**
- **Person Attributes**
- **Color**
- **Size**
- **Speed**
- **Dwelling Time**
- **Direction Of Travel**
- **Proximity**
- **Appearance Similarity**
- **Face Recognition**
- **License Plate Recognition**

Rapid REVIEW is a robust extension to XProtect, providing additional value to an already capable product.

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XProtect Rapid REVIEW

Article
Give Your Analytic Capabilities a Boost with These Hard-Working Servers

Forensic Tools Help Advance the Investigation

An after-incident investigation is critical whenever an incident occurs on a school campus. The inquiry includes many standard policing techniques, such as collecting physical evidence, interviewing witnesses, and building a timeline of events. However, the real story is often apparent to investigators when irrefutable video evidence is available.

New tools make investigations easier for security operators. For example, Milestone offers Incident Manager for XProtect VMS. This tool lets you streamline incident documentation in the platform. Furthermore, Incident Manager displays an overview of all incidents in your organization, making reporting more efficient.

Surveillance video captures proof of vandalism, thefts, assaults, accidents, or harassment. With Incident Manager, you can locate the needed evidence by reviewing footage, logging relevant information, and exporting a report to share with authorities. Moreover, the evidence collected validates claims and helps investigators better understand incidents.

↗ **LEARN MORE**
Incident Manager for XProtect VMS

Access Control is Making Progress

Access control is common in many schools. As a result, students and school staff are familiar with using controlled access doors. A well-implemented access control system depends not only on including a physical barrier, such as a door, but also on staff-controlled entry points or automatic electronic access doors using a keypad or NFC card reader. Some access points use two-way intercoms with video so staff can verify and approve visitor access.

The best access control practice employs increased levels of verification and approval for site visitors. In addition, authorized staff can enter the secure environment without delay. Furthermore, modern access control systems provide permission levels for users and groups, making it easy to differentiate access levels. For example, with granular permissions, the access control system can restrict visitors or students from sensitive areas and provide all-access for authorized personnel.

XProtect Access is an extension for XProtect VMS integrating your access control system. Combining communication between disparate systems adds value by making them available within Milestone's open platform.

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XProtect Access

Bi-directional Access Control Integration

Traditionally, video management and access control software operates in siloes—without sharing information. However, Milestone works to integrate XProtect to share information and video with access control systems from various technology partners.
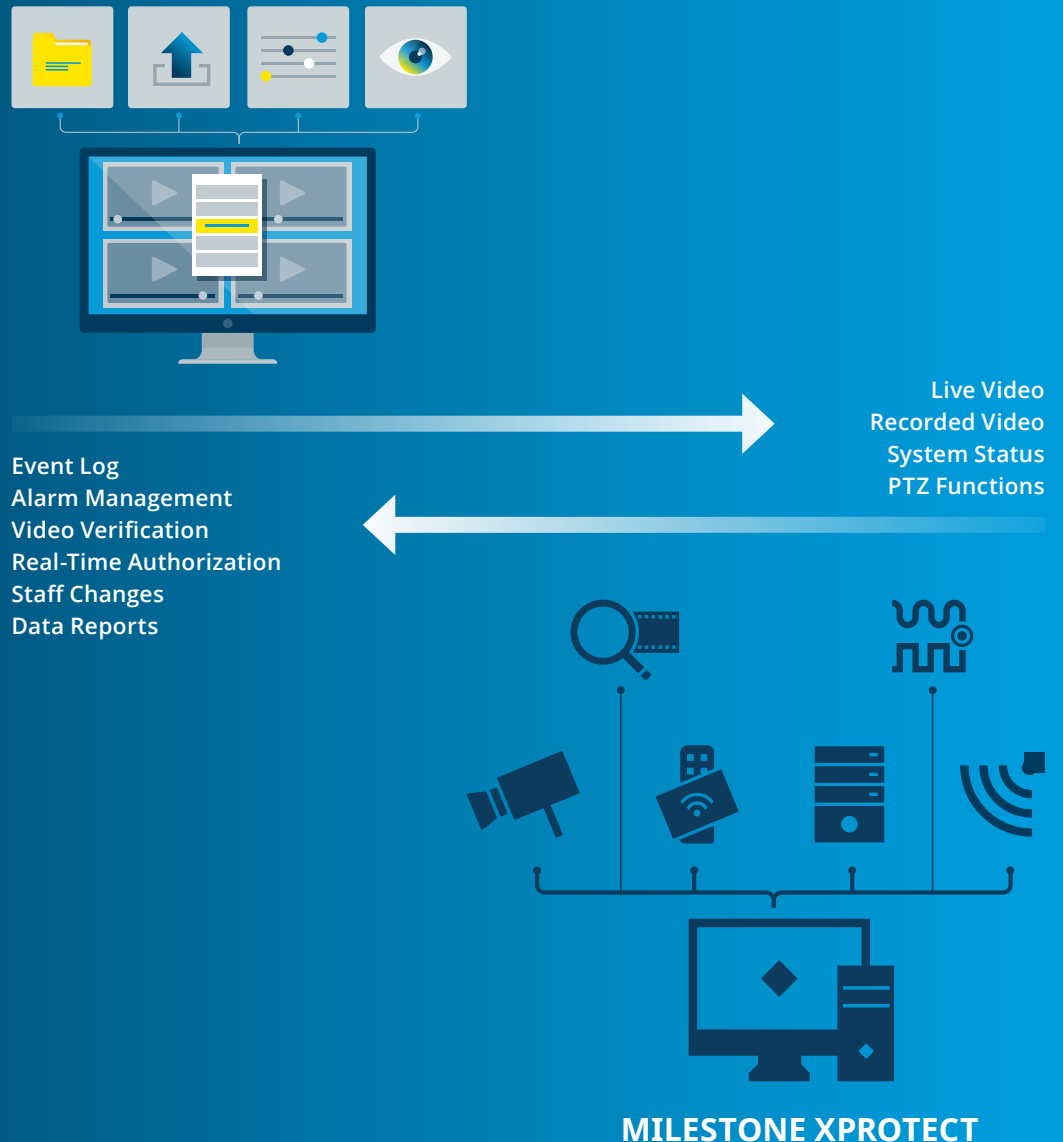
The information shared between systems makes the experience better for users. For example, when access control software communicates event information with XProtect, the data shows in the VMS user interface. Moreover, when bi-directional integration is complete, video can show up in the access control system and play within the software.

Integrating access control with XProtect allows your operators to make better decisions by instructing them to visually verify the identity of visitors who request access to your school environment. Operators grant access requests in real-time in XProtect. The open platform also scales to manage installations with access doors at one location or multiple sites. Furthermore, XProtect can work with various access control systems simultaneously.

Milestone partners with several access control manufacturers, integrating our products with their access systems. For example, XProtect VMS has a bi-directional integration with OnGuard Access Control by LenelS2. As a result, more information can be shared between systems, making it more useful for operators.

LEARN MORE
OnGuard Access Control by LenelS2

ONGUARD® ACCESS CONTROL BY LENELS2

Live Video
Recorded Video
System Status
PTZ Functions

Event Log
Alarm Management
Video Verification
Real-Time Authorization
Staff Changes
Data Reports

MILESTONE XPROTECT

Identifying the Invisible Threat

According to the Partner Alliance for Safer Schools, vaping and THC usage on school campuses is at epidemic levels, and it is not uncommon for these incidents to go undetected. Air quality sensors are available for security systems to sense vaping or the presence of chemical particulate in the air (e.g., tobacco, THC, vaping particulate, and other chemicals). In addition, these sensors can easily trigger alerts and log readings to provide evidentiary data when connected to a more extensive, integrated system.

In a whitepaper on the e-cigarette problems in schools, PASS reports, "While no one technology can solve the problem of vaping in schools, there are a number of technologies that when used in combination and supported by policies and practices, have proven to be highly effective. Technologies such as electronic hall pass systems, 'smart' cameras with analytic software, proximity card access control systems, and vape sensors have all been used with success in helping to address student e-cigarette use."

In addition, audio sensors can apply artificial intelligence to listen for spoken keyword safety phrases, such as "Help" or "Call 911." Furthermore, some sensors can detect escalating aggression or gunshots. Finally, the IoT devices are deployable with or without associated camera support to protect personal privacy when necessary. For example, bathrooms and locker rooms are not appropriate locations for cameras, but technicians can install air quality sensors in these rooms.

Milestone technology partner, IP Video Corp., manufactures the Halo Smart Sensor, which fully integrates with Milestone XProtect and Milestone Kite. As a result, logging and visibility in Milestone VMS platforms are easy to accomplish. In addition, with Halo sensors, your security system's functions are extensible, meaning the addition to your security architecture provides a safer K-12 campus environment.

↗ **LEARN MORE**
Halo Smart Sensor

Halo sensor information transmits data to XProtect, which triggers alarms and automates processes. For example, when XProtect logs an alert, staff will know due to triggered actions.

Here are a few ways XProtect automates notifications for your staff:

- OPERATORS: Real-time notifications display on-screen along with an audible alert.
- HALL MONITORS: The platform sends email or text messages directly to team members.
- INVESTIGATORS: The VMS triggers automatic video recording from a nearby camera for later review by security personnel.

Open Platform Video Technology

Milestone XProtect VMS is an open platform software that extends your existing or new security infrastructure, bringing powerful tools to your school security environment. In addition, you can leverage your existing security network and equipment or add new security cameras as needed. Milestone integrates over 13,000 IP devices, including cameras. As a result, we leverage our open concept by offering a broad set of tools and plugins from our technology partners.

↗ **LEARN MORE**
Milestone XProtect VMS

Cloud-Delivered VMS

Milestone Kite™, powered by Arcules, is a new cloud-delivered video management software connecting your school surveillance cameras to the cloud, giving you options for system scalability by providing new extensible capabilities. As a result, it is now easier than ever to protect your students, faculty, and school property from virtually anywhere. Moreover, Milestone Kite provides enough flexibility to secure small or medium-sized schools.

The Kite platform can scale to your installation needs, whether for a single site or multiple campuses. In addition, we have hybrid solutions that consider your need for on-premise and cloud-combined security architecture. The Kite platform complements the XProtect platform for a hybrid, cloud-delivered security solution.

Milestone Kite deploys with simple installation and low-impact maintenance, making it a good choice for many K-12 schools. In addition, Kite's cloud-based delivery makes centralization of management accessible. An advantage of our cloud-delivered platform is that your security infrastructure becomes future-proof, providing an automatically updated security system.

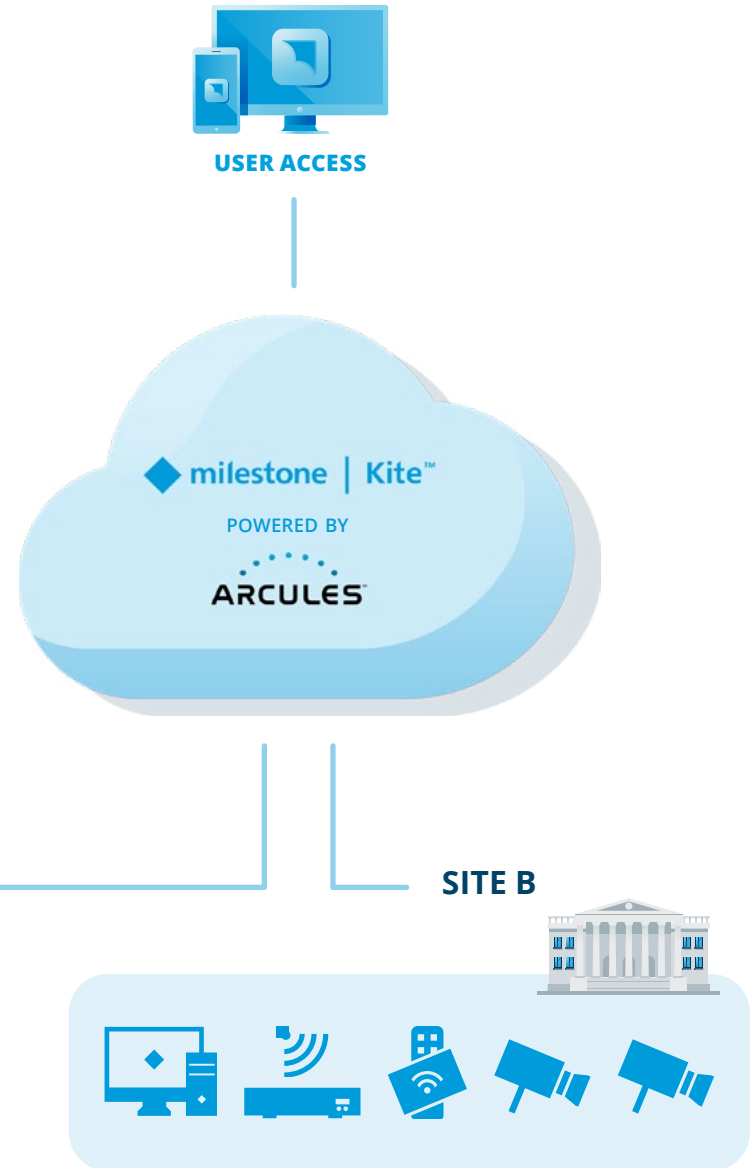↗ **LEARN MORE**
Milestone Kite
Arcules

Cloud-Delivered VMS (Continued)

Our easy interface is simple to manage, whether you are monitoring a single campus or getting an overview of hundreds of cameras spread out across many campuses or locations. Moreover, Kite helps your school district save money on capital expenses. With a low up-front investment and limited costs through the product lifecycle, you'll save money in the long run.

In addition to Milestone Kite, we offer hybrid cloud solutions and XProtect on AWS. When XProtect deploys on Amazon Web Services, it reduces hardware on-premises. It leverages AWS Infrastructure and Platform-as-a-Service to remove the friction in setting up and maintaining on-site VMS systems. The result is a highly-flexible VMS solution deployed globally, with elastic compute, storage, and networking, that adjusts easily to the distributed needs of the business.

LEARN MORE
XProtect on AWS

USER ACCESS

milestone | Kite™

POWERED BY

ARCULES™

SITE A

SITE B

Overcoming Budgetary Challenges

In the K-12 environment, budgetary challenges are always a concern. School administrators and security personnel can make proactive plans to follow best practices, but the fiscal hurdle will always be present for school districts. Therefore, stakeholders should prioritize safety and security measures appropriately.

The Partner Alliance for Safer Schools (PASS) provides its School Safety and Security Guidelines to help K-12 schools understand the best practices for securing the campus. The PASS guidelines and their School Security Checklist will help your school understand security priorities.

Understanding priorities is the first step in evaluating your budgetary needs. A good security plan ensures that all the parts of the security system function well together. For example, access control, network-connected security cameras, visitor management systems, mass notification systems, and video management software can all work together in a unified system. Proper planning will provide your school with a security system that will be easier to use and more affordable.

Your school campus might need a new security infrastructure to accomplish your goals. However, that is not always the case. When considering an open platform, such as XProtect video technology, you might leverage some of your existing hardware and network to deploy an expanded security footprint. For example, you can reuse the security cameras you already have. In addition, you may have network servers that are still appropriate for hosting your video management platform. Security experts at Milestone and your local security integration professional can help you determine the best way to accomplish your goals and remain within your budget.

Education Concerns and Security Compliance

Schools that receive US federal funds are subject to the Family Educational Rights and Privacy Act (FERPA), a federal law that "protects the privacy of student education records." This law assigns rights to a child's education records to the parents or guardians. Once the student becomes an adult, the right passes to the student.

FERPA limits the power of schools to maintain any personally identifiable information of the student within the school records. This law applies to school security records in specific ways:

- **Laws may require schools to open their records to inspection.**
- **Laws may require schools to correct inaccurate or misleading data in their records.**
- **Laws may require schools to seek approval for any release of records regarding the student.**

As you can see, school administrators must consider FERPA restrictions and regulations in the overall security plan.

Milestone Supports Your School Grant Efforts

The Milestone Systems Grant Writing Program is a project solution to assist with coordinating and creating grant applications for your school. This program allows your organization to secure grants for purchasing security hardware and software your school district could otherwise not afford.

Grant Assistance Program Features:

- **Identify and match potential grants to your school district**
- **Assistance with completing the application and submitting it to the granting authority**
- **Provide the security threat assessment**
- **Deliver the necessary reporting requirements**
- **Respond to any audit requests**
- **System financial assistance during the process**
- **Management of a complex extended lifecycle process**

The grant application and award process is often complex and overwhelming. As a result, schools fail to use millions of dollars in grant funds annually. Furthermore, this isn't the intent of the granting authority. Instead, they intend for schools to use the funds to make campuses secure. However, schools fail to manage the complexity of the fund application requirements.

Milestone has the expertise to manage this process with our grant team. We take a leadership role using hands-on management of all grants when you identify a campus security need that can take advantage of this existing revenue budget. Contact our experts to begin the journey to develop the solution.

Summary

By investing in the right tools, your security teams can better meet the expectations of parents and students by improving efficiency and response times to ensure their safety and protection. In addition, forward-thinking school districts employ various tools to meet new needs, including advanced video analytics, automation, IoT devices, and other security technology.

Even after accomplishing day-to-day security, more value is available in an advanced security system and VMS. For example, data insights can help inform building maintenance, layout, and staffing.

Investing in an open platform is critical when building a flexible and scalable security system that can adapt to changing expectations, growing campuses, and new technologies.

The choices that security leaders make today will reverberate for years to come—both in the safety of a campus and a school's reputation, as well as students' performance and professional prospects.

Milestone education technology experts are available to help you evaluate your needs and talk with you about security and operational solutions for your campus. Reach out to schedule a customized demo with one of our experts.

About Milestone Systems

Milestone Systems is a leading provider of data-driven video technology software in and beyond security that helps the world see how to ensure safety, protect assets, and increase business efficiency. In addition, Milestone enables an open platform community that drives collaboration and innovation in developing and using network video technology with reliable and scalable solutions proven in more than 500,000 customer sites worldwide. Founded in 1998, Milestone is a stand-alone company in the Canon Group.

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For more information visit:
milestonesys.com

Have questions for your school?
Book a demo with a local product specialist.

See it in action. Read more about Anaheim Union High School District and Canyons School District expanding their campus-wide security with Milestone.

Anaheim Union High School District
Canyons School District