



Cisco Physical Security Solutions: Improve School Safety

Physical security is a top priority for school districts. Safe and secure campuses are better learning environments. They help attract and retain teachers. Preventing theft and vandalism frees up money for 21st century learning programs. And schools need to issue timely warnings about threats to students, parents, and employees.

To help create a safe and secure environment, your school has developed plans, trained staff, and implemented systems such as video surveillance cameras, physical access controls, and paging and radio systems. All of these are wise investments, helping to protect against threats ranging from bullying to fights, from smoking to vandalism, from bomb threats to natural disasters.

During the 2007–2008 school year, 85 percent of public schools recorded that one or more incidents of crime had taken place at school, amounting to an estimated two million crimes. During the same year, 62 percent of public schools reported an incident of crime that occurred at school to the police, amounting to about 704,000 crimes, or 15 crimes per 1000 public school students enrolled.

—U.S. Department of Justice, Indicators of School Crime and Safety: 2009.

And yet these investments in physical security can be far more effective and cost less to manage when you tie them together over your existing IP network. Benefits include earlier threat detection, faster response, and enhanced collaboration with local police and parents.

To illustrate, consider a before-and-after scenario involving an intruder on campus.

Campus Safety: Before and After

Before: School resource officers who are away from the office patrolling the campus are not immediately aware of the intruder because video of the breach is available only on one console, in the security office. Administrators and police have to wait for the security officer or IT department to create a copy of the video before they can circulate the intruder's picture. If a lockdown is imposed, facilities personnel have to walk from building to building to lock doors, lengthening the time an intruder can enter. The school office needs to send someone to each classroom to alert teachers to the incident and issue instructions, possibly compromising the messenger's safety. Campus safety officers, the principal, and superintendent cannot communicate directly with first responders because they don't have the right kind of radio system. In the absence of official communications, parents flood the school and district office with phone calls, potentially blocking out calls from first responders.

After: The scenario unfolds more efficiently in schools that use Cisco® physical security systems that interoperate over the district’s existing IP network. A Cisco IP Video Surveillance Camera detects motion near the fence and automatically sends an alert to the campus safety officer’s mobile phone or pager. The security officer and administrators can view the video from any web browser, including on a smartphone, while patrolling the campus. The safety officer or an administrator remotely locks doors from a web interface, using a Cisco Physical Access Control solution. The office sends a text or audio page to Cisco Unified IP Phones in classrooms, notifying teachers about the intruder and providing up-to-date information and instructions. Using the Cisco IP Interoperability and Collaboration System (IPICS), campus safety officers, the superintendent, and administrators use ordinary phones, mobile phones, and radios to communicate directly with police and each other on their radios. First responders and school officials can use the Cisco IPICS solution to share their status, school maps, and video and photos of the intruder. And the school can proactively notify and inform parents and the wider community as the incident progresses by using Cisco Unified Communications to send voicemail messages and Cisco Digital Signs to broadcast updates in school common areas.

“The biggest benefit of Cisco Physical Access Control is that we have confidence that doors are locked when they should be. Administrators no longer worry or have to go around and check individual doors.”

—David Vignery, Director of Technology, Harrisonville Schools

Cisco Solutions for School Safety

Cisco Physical Security Solutions harness the power of your district’s existing IP network to help protect people and property and encourage good behavior. Unlike proprietary physical security solutions that only work with equipment and software applications from the same vendor, Cisco solutions are based on open standards to interoperate with cameras, sensors, and applications from other vendors. This preserves your investment in existing equipment, such as video surveillance cameras, and gives you the flexibility to add new safety capabilities as they become available, extending the life of the investment.

“[With Cisco Video Surveillance Manager], campus resource officers need only a couple of hours to learn how to switch between video feeds, review the 14-day archive, and export a video to a DVD to share with local police.”

—Matt Frederickson, Director of IT, Council Rock School District

The complete portfolio of Cisco Physical Security Solutions supports the safety plans developed by your school resource officers and community police (Figure 1):

Figure 1. Cisco Connected Physical Security



Solution	School Safety Benefits
Physical Security	
<p>Video Surveillance Cisco Video Surveillance Manager and Cisco Video Surveillance IP cameras enable you to easily access real-time and archived video from any camera in the school district</p> <p>Cisco also offers VSS Alloy for Cisco Video Surveillance Manager, a Solution Plus product that is an user interface designed for the education market.</p>	<ul style="list-style-type: none"> • Allows you to place cameras in any location with a wired or wireless network connection, avoiding new cabling costs • Enables authorized personnel to securely access video from anywhere, at any time • Stores video on or off campus • Integrates with existing and new cameras, video analytics, and other systems using open standards • Intuitive user interface for live and recorded camera viewing • Integrated mapping interface • Quick access to video archives • Video paging
<p>Access Control Cisco Physical Access Control lets you manage a schedule for unlocking building doors and indicate who can enter</p>	<ul style="list-style-type: none"> • Helps prevent unauthorized access to school buildings • Enables remotely controlled lockdowns to isolate safety incidents • Reduces personnel requirements for entry monitoring • Creates an accurate log of who enters your buildings • Integrates with Cisco Video Surveillance Manager to increase situational awareness by automatically tagging video when someone swipes an access card
<p>Incident Response Cisco IP Interoperability and Collaboration System (IPICS) solution allows schools to rapidly respond to incidents, emergencies, and facility events and collaborate with first responders</p>	<ul style="list-style-type: none"> • Provides communications interoperability among people using practically any analog or digital radio system • Consolidates all information relating to an incident • Enables sharing of multimedia data such as video, images, web links, and alarm status • Easily activates predefined security notification policies with a single click
Other Cisco Technologies	
<p>Self-Defending Network Cisco Self-Defending Network technologies include:</p> <ul style="list-style-type: none"> • Identity management • Network Admission Control (NAC) • Firewall • VPN • Intrusion prevention system (IPS) • Cisco Security Agent • Email and web security 	<ul style="list-style-type: none"> • Protects the network from intentional or unintentional damage, keeping it available for vital communications and security systems • Protects confidential student and staff information • Helps prevent infections from student and teacher laptops and smartphones
<p>Mobility and Wireless Cisco Unified Wireless Network enables anytime, anywhere access to critical information and accelerates mobile emergency responses</p>	<ul style="list-style-type: none"> • Enables mobile administrators to carry a Cisco Unified Wireless IP Phone and be reached at the same number from any location • Provides secure guest access • Pinpoints the location of school laptops and can track the location of people wearing RFID bracelets and assets with RFID tags, such as lab equipment
<p>Unified Communications Cisco Unified Communications Manager enhances communication within the district, with first responders, and with parents</p>	<ul style="list-style-type: none"> • Provides one-touch phone access to first responders • Enables emergency alerting to multiple devices using text messaging and recorded voice announcements • Reports the precise location of the phone used to dial 911, and can send emails to administrators' inboxes or IP phones so that they can confirm the emergency and provide help sooner • Easily integrates your communication systems with public safety answering points and first responder agencies • Lowers number of dedicated phone lines to reduce infrastructure costs
<p>Digital Signage Cisco Digital Signs display safety messages and instructions in common areas with centralized control and scheduling</p>	<ul style="list-style-type: none"> • Enables you to create, publish, and distribute emergency information across the school or district • Decreases operational costs compared to standalone digital signage systems • Can also be used for training, district news, broadcasting graduation ceremonies, and more
<p>Smart Connected Buildings Cisco Network Building Mediator monitors alarms, temperatures, heating, ventilation, and air conditioning systems, and can automatically shut down or adjust systems depending on conditions</p>	<ul style="list-style-type: none"> • Identifies environmental anomalies and initiates appropriate response, based on policy • Reduces personnel requirements for building system monitoring • Monitors and reduces energy consumption
<p>Desktop Video Cisco Show and Share makes it easy to create, edit, and publish web-based videos to train students, faculty, and staff while Cisco WebEx™ supports real-time, interactive training</p>	<ul style="list-style-type: none"> • Reduces the time and cost of regular safety training for staff, faculty, and students
Cisco Partner Solutions	
<p>Video Analytics Detects motion and sounds and alerts appropriate people</p>	<ul style="list-style-type: none"> • Reduces the need for manual building checks and accelerates incident detection • Initiates predefined responses to reduce response time
<p>Notification Services Enables school officials to broadcast announcements to Cisco Unified IP phone speakers and external IP speakers</p>	<ul style="list-style-type: none"> • Integrates intercom, bell, and alarm systems, reducing maintenance and management costs • Centralizes pages and automatic emails and phone notifications • Integrates with other student information systems
<p>Visitor Management Systems Automatically captures visitors' images and identification, making it unnecessary for a staff person to always be at the desk, and can also check visitor names against databases of unwanted persons.</p>	<ul style="list-style-type: none"> • Replaces inefficient, paper-based logging systems • Maintains an accurate visitor record for auditing and safety-incident reporting • Automatically identifies unwanted visitors and denies them access to school buildings
<p>School Transportation Monitors and tracks school buses during travel.</p>	<ul style="list-style-type: none"> • Provides remote video monitoring capabilities to school resource officers, police, and first responders • Accelerates response to safety incidents on school buses

Why Cisco?

Schools worldwide are choosing Cisco solutions to enhance safety and security because Cisco offers:

- **Comprehensive physical security solutions:** Combining video surveillance, access control, and incident response, Cisco Connected Physical Security Solutions are easy to manage and easy to support. And because they're based on open standards, you can easily integrate Cisco solutions with products from Cisco partners to meet your district's specific requirements.
- **Strong understanding of and commitment to education:** Cisco recruits employees with education backgrounds to help guide product development for all sizes of schools. Cisco is a strategic partner in the Global Education Initiative, led by the World Economic Forum, as well as other worldwide education programs. Cisco's largest education initiative is Cisco Networking Academy®, a proven model for 21st century learning that equips students with the IT and networking skills necessary to compete in a global economy. Networking Academy is available in more than 160 countries and serves more than 900,000 students in the United States alone.
- **Commitment to customer service and customer success:** In addition to hardware and software products, Cisco provides a broad range of service offerings to help schools succeed.
- **Technical expertise:** Cisco and our partners help to make networks, applications, and people work better together. We make sure your Cisco security solutions and network operate efficiently and benefit from up-to-date system and application software. Cisco Advanced Services integrates safety and security solutions from Cisco and our partners and helps you lower your operational costs, increase network availability, and optimize performance.
- **Interoperable, standards-based solutions:** Cisco's standards-based solutions interoperate with hardware and software from other vendors, enabling you to extend the value and life of your investment in a Cisco network.
- **Cisco CapitalSM finance programs:** Innovative financing enables schools to easily acquire, deploy, and optimize their solutions. Options include Tax-Exempt Lease Purchase (TELP), Fair Market Value Lease, and Cisco Technology Migration Program.

Harness the Power of Your IP Network to Improve School Safety

Cisco can help your school resource officers and community first responders create safety plans that take advantage of the power of your IP network to improve school safety. By using your IP infrastructure to deploy networked services, you can:

- More effectively prevent, deter, detect, and respond to safety incidents
- Enhance collaboration between schools and first responders
- Communicate quickly to students, teachers, staff, parents, and the surrounding community during an event
- Improve operational efficiencies of your physical security systems and resources
- Reduce financial and legal liability
- Reduce costs compared to deploying standalone security systems, freeing up funds for 21st century learning programs and teacher salaries

For More Information

To learn more about Cisco Safety Solutions for Schools, contact your Cisco representative or reseller, or visit www.cisco.com/go/schoolsafety

To learn more about Cisco Physical Security Solutions, visit www.cisco.com/go/physec



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