Cisco Safety and Security Solutions for Schools

Promote 21st Century Learning with a Safe, Secure School

As your school moves toward becoming a 21st century learning environment, a top priority is the safety and security of your students, staff, and faculty, no matter where they are on campus. And, in the 21st century, school safety also relies on safeguarding critical information, assets, and systems. Safe campuses have a sense of comfort and are more conducive to preparing children for the demands of a competitive, global workforce.

Safety and Security Is a Process, Not a Product

With the number of possible threats to the safety of your school, both natural and human, it is easy to feel overwhelmed. But with the right approach and supporting technologies, you can keep people and assets protected across your school or district while getting the most out of your existing investments. It requires a comprehensive approach to safety and security like the five-step process shown in Figure 1.
Horizon Charter School students learn beyond the walls of a traditional school building. Created to support home-schooled students, Horizon is a fully WASC accredited tuition-free public school that is chartered under California’s Western Placer Unified School District. This enables Horizon to obtain state educational funding that supports standardized curricula, supervising teachers, and testing services for approximately 3000 home-schooled, independent study, and Montessori site based K-12 students.

**Challenge**
- Reduce communication costs
- Implement security measures
- Replace aging infrastructure and improve application performance

**Solution**
- Replaced phone system with IP telephony
- Installed next generation wireless network
- Replaced all legacy IP network switches

**Benefits**
- Eliminated cost of separate telephone network and service
- Gained network security and emergency notification capabilities
- Improved access to applications, data, and network resources for teachers, administrators, and students
- Enabled mobile access to information and mobile, real-time response to emergencies

To read the full success story, visit: [http://www.cisco.com/web/strategy/docs/education/HorizonCharter-SchoolCaseStudy_V2.pdf](http://www.cisco.com/web/strategy/docs/education/HorizonCharter-SchoolCaseStudy_V2.pdf)

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**Table 1. Cisco Safety and Security Solutions**

<table>
<thead>
<tr>
<th>Solution</th>
<th>Feature Highlights</th>
<th>Benefits</th>
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<tbody>
<tr>
<td><strong>Cisco Self-Defending Network</strong></td>
<td>- Identity management&lt;br&gt;- Network Admission Control (NAC)&lt;br&gt;- Firewall&lt;br&gt;- VPN&lt;br&gt;- Intrusion prevention system (IPS)&lt;br&gt;- Cisco Security Agent&lt;br&gt;- Email and web security</td>
<td>Ensure network and information security</td>
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<td><strong>Cisco Unified Communications</strong></td>
<td>- Cisco Unified Mobile Communicator&lt;br&gt;- Enhanced emergency call support&lt;br&gt;- Internal communication and paging&lt;br&gt;- Outbound communications and notifications</td>
<td>Enhance communication and collaboration</td>
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<tr>
<td><strong>Cisco Physical Security</strong></td>
<td>- Cisco Video Surveillance Manager&lt;br&gt;- Wired and wireless IP cameras&lt;br&gt;- Physical security access control</td>
<td>Safeguard the physical environment, including both assets and people</td>
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Cisco Mobility and Wireless

- Cisco Unified Wireless Network with next generation high-speed wireless
- Integrated WLAN security for secure guest access
- Real-time asset tracking (assets and people)
- Mobility-enabled security applications

Enable anytime, anywhere access to critical information and accelerate mobile emergency responses

Cisco Digital Media System

- Desktop video
- Digital signage
- Enterprise TV

Enable real-time alerts and mass notifications

Grant Joint Union High School District Enhances Campus Security

Like many school districts, California’s Sacramento Grant Joint Union High School District has concerns regarding student safety and the financial impact of property destruction. Video surveillance offers a unique solution to both concerns. Not only is video surveillance a known deterrent to property theft and destruction, it also enhances student and faculty safety by enabling faster response.

Challenge

- Inflexible legacy analog system
- Limited storage capability
- Lack of remote access

Solution

- Network-centric video surveillance
- Flexible and scalable system for future expansion
- Redundant archives in local and remote locations
- Role-based video access to mobile or remote users
- Take advantage of current IT infrastructure

Benefits

- Quickly resolve confrontations
- Help ensure student safety
- Reduce theft after school hours

Cisco Solutions at Work

Before:
The following scenario could happen at any school with disparate systems. A notebook catches spark in a science classroom and begins to burn. A teacher sees the smoke, initiates the safety protocol, and calls the resource officer. The officer then calls the fire department, as the principal evacuates the building. The fire department arrives and notifies the principal to cordon off the building. The principal asks an administrator to call for the buses, call parents notifying them of an early release, and broadcast over the loudspeaker that classes are cancelled for the rest of the day. Meanwhile, the students wait on the lawn for buses and parents to pick them up.

After:
With Cisco Safety and Security Solutions in place, the scenario unfolds more efficiently. A teacher activates an emergency alert on an active RFID tag upon detecting the fire. The RFID alarm triggers an alert to the principal, who then contacts the teacher. Based on the information received, the sensors trigger predetermined actions in the school’s safety plans, while simultaneously alerting school resource officers and the fire department. The principal evacuates the school and sends simultaneous notifications to the transportation department and the central office. First responders determine that they need to close the building. This leads to an automatic SMS text notification that is sent to the transportation department and to parents, notifying them of an early release. It is also sent to digital signs throughout school grounds, to students and parents with cell phones, and to the paging system. Students start getting picked up within minutes of the notification.

To read the full success story, visit: http://www.cisco.com/web/strategy/docs/education/Grant-Union-Case-Study.pdf
How Do You Get There?

Schools typically follow this roadmap to improve the safety and security of their campuses. First, they use the network as the platform to achieve effective, efficient collaboration and information sharing. Next, they deliver all services over a centrally managed, converged IP network. They implement well-planned, robust network architectures and infrastructures for improved communications between faculty members, students, and staff. Finally, they use wired and wireless technologies to ensure that physical environments are safe and network environments are secure.

Get More Information

Cisco’s vision is to transform the network into a platform for operational sustainability and comprehensive safety and security, with every networked device potentially a part of the optimal solution. Cisco is helping to create a connected, on-demand learning environment. By providing a secure, nurturing educational atmosphere, your teachers can better engage students and equip them with the skills they need for success in the years ahead. For more information about Cisco Safety and Security Solutions or creating 21st century learning environments, visit: http://www.cisco.com/go/schoolsafety