



# Avaya Safe School Solution

## Keeping students safe through instant, coordinated communications

Parents send their children off to school each day expecting that it will be a safe, nurturing environment. The vast majority of time, it is. But what if something happens that puts them in danger?

The question is not whether an emergency will occur at the school, because chances are that someday it will — weather emergency, fire, intruder or other risk. When it does, time can be as precious as the lives and safety of the students, teachers and staff inside. Fortunately, advances in communications technology are providing schools with powerful and economical tools to respond quickly and comprehensively.

The Avaya Safe School Solution takes such advances to a new level. It can help school districts bring the latest safety and security communications capabilities to their campuses efficiently and economically, while making the most of existing infrastructure and

resources. When an emergency happens, an array of notification and security capabilities, from E9-1-1 emergency calls, to alarms and strobe lights, to door locks and loudspeakers — some triggered automatically — can save critical time and protect the well-being of students, faculty, staff and visitors.

### Preparing for threats

For years, authoritative voices, including the U.S. Department of Homeland Security<sup>1</sup> and the National Electrical Manufacturers Association,<sup>2</sup> have provided guidance on creating effective real-time communications systems to support school safety and security. Key system elements can include broad access to E9-1-1 emergency call dialing and emergency broadcast devices, preemptive emergency communications, schoolwide broadcasts that are intelligible even in loud environments, and visual notifications for persons who are hearing impaired.

The question is not whether an emergency will occur at the school, because chances are that someday it will — weather emergency, fire, intruder or other risk. When it does, time can be as precious as the lives and safety of those inside.

<sup>1</sup>"Primer to Design Safe School Projects in Case of Terror Attacks and School Shootings," U.S. Department of Homeland Security, January 2012, <http://www.dhs.gov/bips-07-primer-design-safe-school-projects-case-terrorist-attacks-and-school-shootings-2nd-edition>

<sup>2</sup>"Communications Systems for Life Safety in Schools," NEMA standard SB 40-2015, January 28, 2015, <http://www.nema.org/news/Pages/NEMA-Publishes-ANSI-NEMA-SB-40-2015-Communications-Systems-for-Life-Safety-in-Schools.aspx>



## Industry-leading features

- Anywhere access with mobile devices
- Centralized visual management and control
- Audible alerting through next-generation paging
- Fully integrated visual alerting
- Communications-enabled door controls and emergency buttons
- Open architecture for media streaming

Achieving such capabilities can be especially challenging in educational environments. School infrastructures routinely include disparate legacy systems for paging, alarms, door security, public address communications and general telephony. Some of those systems may be aging, and replacing them entirely may trigger local, state or national regulations requiring major renovation or remediation of hazardous materials, such as asbestos insulation. With tight budgets, few schools have the appetite for total system replacement.

For new school construction, installing the latest communications technology is a natural fit, including all of the associated hardware, software applications and wiring. But for existing schools, wouldn't it be refreshing to know that you can introduce the latest technology a layer at a time without "going behind the walls"? Avaya gives you the flexibility to deploy all or part of the Avaya Safe School Solution at whatever pace works best for your situation.

## Avaya Safe School Solution: Flexible. Fast. Economical.

The Avaya Safe School Solution, a joint endeavor with Avaya DevConnect Technology Partners, Algo Communication Products Ltd.

and Conveyant Systems Inc., is an end-to-end solution that can be deployed in a wide range of environments. Algo endpoints are built on Session Initiation Protocol (SIP) technology that can integrate into aging analog systems, Internet telephony networks and advanced unified communications (UC) systems. The relationship between Avaya and Algo gives schools access to best-of-breed capabilities.

On-site notification, provided by the Conveyant SENTRY application, delivers device details and floor plan information to internal emergency responders so they understand where to direct resources when they arrive on the scene.

Avaya is a leader in customer and team engagement solutions, and Algo and Conveyant are leading suppliers of notification, security and paging capabilities. The compatibility and interoperability of our products and services are achieved through extensive compliance testing.

The Avaya Safe School Solution provides the enhanced communications capabilities required for managing emergencies, including access control for campus building(s) and priority communications and situational awareness. It works seamlessly with core school communications systems, intercoms and collaboration services (Figure 1), and SIP-enablement allows for full

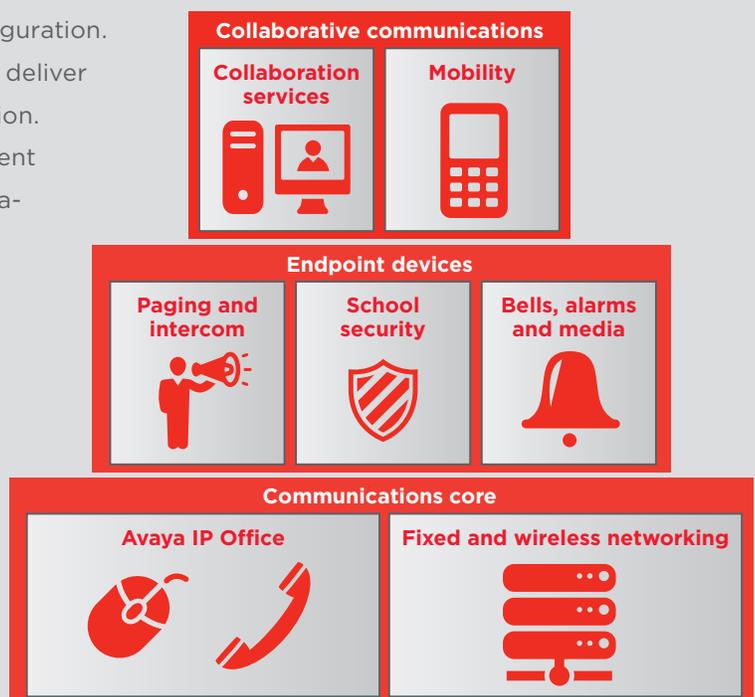
# Advanced, fully integrated technology powering the Avaya Safe School Solution

**Collaborative communications.** Avaya Safe School Solution allows for comprehensive, flexible and affordable options for collaboration services, including multimodal collaboration through Avaya Aura Conferencing; room-based, desktop and mobile video collaboration through Avaya Scopia® solutions; mass notification solutions for rapid dissemination of information across multiple channels; and contact engagement solutions for multichannel response to incoming queries associated with emergency incidents. Mobile alerting and communications capabilities are also available through Avaya Communicator for IP Office. School personnel can manage communications and emergency actions from their mobile devices, including door access control, emergency soft button, broadcast messaging and emergency response activation and announcements. In an emergency, seconds count, and having mobile capabilities may literally save lives.

**Endpoint devices.** A wide array of intelligent, integrated endpoint devices are available from Algo for the Avaya Safe School Solution, including SIP-based audio and visual alerting, door access controls, emergency buttons, options for legacy integration, and application controller. Algo SIP paging and speaker devices support wideband voice capabilities (G.722), providing optimum speech clarity that makes it easier for students, faculty and staff to hear emergency announcements in noisy environments.

**Communications core.** The foundation of the Avaya Safe School Solution is Avaya IP Office, a simple and powerful communications solution. Using virtualized software and a dedicated server or appliance, Avaya IP Office supports a broad range of endpoints. Avaya offers a number of traditional, full-featured Ethernet switches that can handle many needs, from school to campus to district levels, whether through a centralized or hosted configuration. Also available are Avaya Wireless LAN solutions that deliver excellent application visibility, control and prioritization. In addition, the IP Office Soft Console provides incident administration and monitoring for instant communications during emergencies and allows you to manage the activation of emergency buttons.

Figure 1. A comprehensive, end-to-end solution





integration of point-of-entry devices with Avaya Networking Solutions and Avaya IP Office communications systems. As a result, it not only delivers a broad scope of emergency communications capabilities, but it also provides state-of-the-art communications and collaboration capabilities schools need for day-to-day operations, including paging, announcements, bell scheduling, door control and communications, and administrator-teacher collaboration.

The Avaya Safe School Solution is intended to provide cost savings over solutions with multiple disjointed telephony, intercom and security systems. It integrates SIP- and IP-based endpoints for audible and visual alerting, paging, visitor assistance and door intercom security. The result is a comprehensive, cost-effective and validated solution specifically customized for safe school deployment.

Scalable deployment models can meet the needs of schools of all sizes. The Avaya Safe School Solution can be rolled out quickly, helping meet tight deadlines that can arise within school funding cycles.

## The Avaya Safe School Solution at work

School emergencies typically require one of five responses: evacuation, reverse evacuation, lockout, lockdown or response to an isolated emergency. In any of these situations, the Avaya Safe School Solution supports quick, appropriate action. Examples of potential scenarios in which the Avaya Safe School Solution could be used include:

**Evacuation**— when school buildings are unsafe because of a gas leak, power loss or bomb threat, requiring assembly outside the school, or a drill is initiated.

School emergencies typically require one of five responses: evacuation, reverse evacuation, lockout, lockdown or response to an isolated emergency. In any of these situations, the Avaya Safe School Solution supports quick, appropriate action.

- Principal dials activation code using Avaya phone, softphone or mobile application.
- Strobe lights display evacuation flash pattern and announcement activates evacuation procedure and requests staff acknowledgement.
- Staff and fire department monitor the evacuation from the office via video door controllers.
- Teachers report student status to office staff with Avaya Communicator.
- Principal dials evacuation deactivation code.
- “All clear” announcement is made and the school transitions to reverse evacuation.

**Reverse evacuation** — when an external threat exists near the school while students are outside the building, such as after an evacuation.

- Principal dials reverse evacuation activation code from Avaya Communicator application.
- Strobe lights display reverse evacuation flash pattern and announcement activates reverse evacuation procedure and requests staff acknowledgement.
- Staff and fire department monitor the reverse evacuation from the office via video door controllers.
- Teachers report student status to office staff with Avaya Communicator.
- Principal dials reverse evacuation deactivation code.
- Announcement and flash pattern signal end of situation, and essential outside contacts are notified.



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## Answering the E9-1-1 imperative

Emergency 9-1-1 calls, especially ones from schools and multi-building campuses, must provide details about the device making the call and its location so internal first responders can coordinate with, and provide pre-arrival assistance to, emergency first responders. In the Avaya Safe School Solution, this information is generated by the Conveyant SENTRY Solution and can appear as a screen pop at the desktops or be displayed on smartphones, thereby delivering the critical situational awareness needed to speed response and help save lives, as well as link to other relevant resources on the network.



**Lockout** — when a weather-related emergency or other outside threat occurs.

- Principal activates “school lockout” code.
- Strobe lights display lockout flash pattern, protective procedure is announced, and audio/visual alerts are broadcasted for students and staff to reenter the school.
- Teachers report student status to office staff with Avaya Communicator.
- Mass notification system alerts parents and transportation authorities via e-mail, SMS and phone calls that lockout is in effect.
- Once situation has been resolved, deactivation code is dialed, “all clear” notification plays on all speakers, and parents and transportation authorities are notified that normal operations have resumed.

**Lockdown** — when a threat arises inside or directly outside the school such as an armed intruder.

- Video surveillance trigger alerts office staff of a potential forced entry, and emergency services are contacted to report incident.
- Principal is informed via a call to his or her Avaya Communicator and uses authorized smartphone to dial activation code for “school lockdown.”
- Strobe lights display a specific lockdown flash pattern.
- Teachers report student status to office staff with Avaya Communicator.
- Parents/transportation authorities are notified that lockdown is in effect.
- Proximity sensor on the door controller triggers a call to staff that first responders have arrived, two-way video validates first responders’ credentials, and access is granted with a private access code.
- At situation resolution, deactivation code is dialed and “all clear” notification plays on all speakers.
- Essential outside contacts are notified that normal operations have resumed.

No school welcomes an emergency, but every school needs to be prepared for one. The Avaya Safe School Solution provides a cost-effective way to have clear, reliable and intelligible communications in extraordinary circumstances.

**Emergency**—for example, a student discovers another student lying unconscious in a school bathroom.

- Student activates an emergency button and office receives auditory and visual alert notifications.
- Staff confirms status of the emergency and any active alarm conditions from the office management console.
- Visual alert outside the bathroom illuminates with preconfigured “emergency” flash cycle.
- Principal communicates with students via intercom and calls emergency responders.
- Principal uses Avaya Communicator-equipped tablet to activate reverse evacuation procedure for specified campus areas.
- “Reverse evacuation” strobe light pattern and announcement are activated; teachers and staff acknowledge event status with Avaya Communicator.
- 9-1-1 personnel communicate directly with those assessing the student while first responders are in route.
- Two-way video validates first responders’ credentials and building access is granted through a private access code.

- Principal dials deactivation code and “all clear” announcement plays on speakers augmented by visual alerts.

## Keeping students and staff safe

No school welcomes an emergency, but every school needs to be prepared for one. The Avaya Safe School Solution provides a cost-effective way to have clear, reliable and intelligible communications in extraordinary circumstances, as well as immediate access to critical situational information. It’s technology you can trust in an emergency.

## Learn more

For more information about Avaya Safe School Solution and Avaya DevConnect Technology Partners, contact your Avaya Account Manager or Authorized Partner, or visit us online at [avaya.com/k12](https://www.avaya.com/k12) and [devconnectmarketplace.com](https://www.devconnectmarketplace.com).



The Avaya Safe School Solution: It’s technology you can trust in an emergency.

## About Avaya

Avaya is a leading, global provider of customer and team engagement solutions and services available in a variety of flexible on-premise and cloud deployment options. Avaya's fabric-based networking solutions help simplify and accelerate the deployment of business critical applications and services. For more information, please visit [www.avaya.com](http://www.avaya.com).

