



SOLUTION BRIEF

# K-12 student safety and wellness

## Vaping and bullying detection with IP video indexing on CommScope's RUCKUS IoT Suite

### The youth E-cigarette epidemic

Schools are on the front lines of this battle. Vaping is a leading cause of out-of-school suspensions, which are costly in both financial and human terms—requiring special administration, remediation and counseling.

Vaping is a difficult behavior to target. Its odor is easily overlooked, it's easy to conceal visually, and it's often done in private areas like bathrooms and locker rooms where human and electronic monitoring is weakest.

Physical bullying is another difficult behavior to detect and has been an serious issue for a long time. Every month thousands of students have to face some sort of physical assault in secondary schools in the US, and the [school bullies statistics](#) keep growing every month. Studies found 49% of children in grades four to 12 have been bullied by other students at school level at least once, with most of the incidents happening in hallways, at their lockers, cafeterias, bathrooms, and playgrounds.

### CommScope's RUCKUS portfolio of WLAN solutions empowers smarter, IoT-based detection

The emergence of the internet of things (IoT) provides schools with the tools they need to detect vaping and loud noises/voices without compromising student privacy. In private areas where cameras are not used, IoT vaping sensors can be deployed and connected via CommScope's RUCKUS portfolio of powerful Wi-Fi and Bluetooth connectivity solutions. Case in point: Soter Technologies' [FlySense® sensor](#).

Axis Communications products:



FlySense Sensor



FlySense App



## IoT-based video indexing technology completes the picture

In some circumstances, it's not possible to respond to a vaping alert in real time or sound anomalies like shouting or fighting. To build in the flexibility and intelligence a school administration needs to perform efficiently, economically and fairly, CommScope's RUCKUS portfolio of Wi-Fi solutions also supports a complementary IoT technology that simplifies following up on a detected case of vaping or suspected bullying.

CommScope has teamed with [IPConfigure](#) and [Axis® Communications](#) to offer an IP-based security camera solution powered by the same WLAN infrastructure that drives FlySense and other IoT devices. It takes a high-performance, high-bandwidth, high-reliability Wi-Fi network to consistently capture and store high-resolution video, and that's what CommScope delivers in support of Axis's superior camera technologies.

What makes this combination of solutions different is that they work together seamlessly and automatically on the CommScope infrastructure—and our RUCKUS IoT suite powers intelligent capture and indexing of video based on detector alerts.

## Two technologies that work better together

Running on CommScope's RUCKUS WLAN infrastructure and IoT Suite solution, Soter's FlySense and Axis's cameras work together to automatically detect, flag, time stamp and document vaping and/or bullying infractions. Here's how:

1. A vaping detector in a restroom detects vaping and/or bullying in progress and alerts administrators and the RUCKUS IoT Suite.
2. IoT Suite automatically identifies which cameras are available near the restroom, and time stamps recorded video from before and after the vaping and/or bullying detection occurs.
3. Administrators now have an easily-accessed video record of who entered and exited the restroom around the time vaping and/or bullying was detected.

### The Soter Technologies FlySense detector

This IoT device detects vaping mist in the air and also flags raised voices in a room without actually recording them—all in real time. It can quickly alert administrators and hall monitors with customized alerts sent to their mobile devices if illicit vaping or bully confrontations are detected where video surveillance is not used, such as bathrooms, locker rooms or anywhere else conditions prohibit video.

**Riding on CommScope's RUCKUS portfolio of Wi-Fi solutions, it's a school's best defense against bullying and vaping by students.**



### Safer schools are possible with CommScope's RUCKUS portfolio of WLAN solutions

CommScope delivers the complete solution—from remotes to APs to Switches to Cabling, all under one dashboard. Together, they empower a universe of smart IoT technologies, including FlySense and Axis cameras.



[www.ruckusnetworks.com](http://www.ruckusnetworks.com)

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