

CAMPUS SECURITY MANAGEMENT

JUMPING INTO THE IP CAMPUS

Largest Texas school district converting to latest security technology

By: Ralph C. Jensen

Imagine a campus security installation so big that it will take years to complete all the work, and it also means installing solutions with the latest technology and significant impact on school security.

This illustration is the kind of job an integrator can really sink their teeth into. It is the kind of solution that a manufacturer wants to keep on their to-do list.

Houston Independent School District (HISD) is the largest school district in Texas and is the seventh-largest school district in the United States. The latest technology is about to make its debut in every one of HISD's campuses. HISD has built ten new schools within the district in 2018 and is expected to add another 10 to 12 this year, all of which will be brought on board with new cabling and IP cameras. In all, there are 280 schools in the district.



"At HISD, the safety of students and staff is always the top priority," district officials said. All new campuses include HISD district-standard safety and security features. These features include designated main entrances, electronic access control systems at security vestibules for visitors entry, and frequently used exterior doors. To control visitor movement, features such as building compartmentalization, comprehensive intrusion detection systems with high definition closed-circuit television cameras, door sensors, motion detectors, alarms, and 24-hour central monitoring were put in place.

Making a Change

The change in security solutions would be significant as the district had already deployed upwards of 17,000 analog cameras at its schools with coax cable. As seen with many of the surrounding school districts, the time had come to

retire the old system and make significant upgrades.

"We (Salient) have partnered with Houston ISD for their security needs for more than a decade," said Paul Fisher, vice president of global key and national accounts at Salient Systems. "We have worked with other nearby school districts in the Houston area,

including HISD. Our extensive experience will continue to guide HISD as they build new schools and refurbish other facilities in the district."

Fisher said the most significant difference with the new IP security installations would be the implementation of Salient's PowerUltra hardware. This hardware will replace an obsolete Windows XP, which is no longer serviced by Microsoft. PowerUltra is the new standard of storage from the IT perspective.



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"This hardware will allow HISD to grow over the next five years and give them twice as much horsepower than they currently need," Fisher said. "This is a major move to IP video surveillance, and each server will easily handle more than 200 IP cameras."

Building schools and refurbishing the current installed base at HISD is no easy task. The district covers territory in nine municipalities and some unincorporated areas in Greater Houston, including all of the cities of Bellaire, West University Place, Southside Place, and most of the area within the Houston city limits. HISD also takes students from the Harris County portion of Missouri City, a part of Jacinto City, a small portion of Hunters Creek Village, a small piece of Piney Point Village, and a small section of Pearland; Pearland annexed territory within HISD between 1998 and 2005. There are 209,000 students, speaking nearly 100 languages, nearly 12,000 teachers, and approximately 28,000 support staff.

Recently Complete Schools

"Safety and security are part of the project scope for all recently completed schools and those currently under construction," district officials said. "This includes the 40 schools that are part of the 2012 Bond Program, as well as seven more schools, either recently completed or under construction, that are not funded by the 2012 Bond."

Additionally, the 2012 Bond Program includes a \$17.3 million line item dedicated to safety and security upgrades at schools district-wide. That focus was further strengthened in 2017 when the HISD Board of Education allocated an additional \$12.1 million for district-wide safety and security needs.

"We are pleased to be a part of this safety and security upgrade at HISD. Using Salient technology at the head-end of the security systems says a lot about our open architecture, and the trust that the school district has placed in us," Fisher said. "As we help HISD move towards a total IP solution, we are also pleased to work with the HISD IT department and upgrade their network cabling."

Not all HISD schools fall under the bond program. Many safety and security upgrades are made based on a review of assessed needs at various campuses. Most updates are at elementary and middle schools because so many high schools have been or will be replaced or rebuilt with the district-standard safety and security measures already incorporated.

"The upgrades have been completed partially in-house and partially by contracting with construction, technology, and security vendors," district officials said. "In regards to wire pulls, all new campuses have robust fiber optic and wire backbones, minimizing the need for new wire pulls. For upgrades at existing campuses, the amount of wiring needed and pull times will vary."

While Salient System's VMS has been in place throughout their decades-long security contract, the company's technology unit has been working hand-in-hand with HISD's Information Technology division with the installation of the PowerUltra in new schools. All while Security Maintenance, a team under the purview of the Business Operations Facilities and Fleet Services Department, is overseeing server replacement in existing schools.

"The leadership of HISD has taken safety and security to a new level with the highest quality of products and solutions, meeting the demands of installation at new schools and existing campuses," Fisher said. "Our goal has been to ensure that the software and storage systems we provide lend themselves to the overall health of the security system. The increased level of visibility in the 'live view mode' ensures that what an operator is looking at is viewed at the proper resolution."

Upgrades are Underway

Implementation of safety and security upgrades is underway. Once fully implemented, HISD expects to see a significant increase in the efficiency and effectiveness of communications— specifically, district officials will be able to see real-time 24/7 server monitoring, allowing for increased connections between the security operations center (SOC) and the security system. Technicians also will be able to troubleshoot remotely, increasing efficiency. "The SOC is manned 24/7," district officials said. "As servers are migrated to the PowerUltra, SOC will be monitoring them 24/7. Currently, a manual report is run each morning to determine what servers are down. Campuses also may call during the day to report if they are unable to view their cameras. Once an issue is identified, a technician is dispatched to the site to troubleshoot."

