FIRE ALARM UPGRADE UNITES SIZEABLE SCHOOL DISTRICT

When Thomas Young talks about the size of his school district, he’s not making a joke about how big everything is in the Lone Star State.

The Clear Creek Independent School District is about 20 miles south of Houston, Texas, with 40,000 students from pre-kindergarten to 12th grade. Young, the special projects supervisor, handles fire protection and other security responsibilities for the district. He monitors 49 sites, including 44 schools and five auxiliary sites, which house technology, transportation and more.

Those sites cover a vast geographic landscape, 103 square miles, with some as far apart as 20 miles, which played a key role in the school district’s requirements for its recent fire protection upgrade. This school district has used NOTIFIER fire alarm systems for decades with the previous upgrade taking place in the early 1990s.
Now two decades later, the school district decided it was time for a revamp. Ease of use, monitoring and maintenance, along with some cost efficiencies provided by the systems’ inherent backward compatibility, have put the entire district’s fire protection in a class of its own.

MONITORING ENTIRELY

Today’s technology has given Young something he has continually wished for—a fully integrated system that can be monitored from his office, allowing Young to keep tabs on all components of each system, in each building, miles away.

“He always wanted some way he could monitor the status of all the panels in his district without having to make a site visit every time a principal called and said, ‘it’s making noise,’” says Steve Cloninger of FireTron, Inc., a NOTIFIER Engineered Systems Distributor (ESD) in Stafford, Texas.

Young’s office is equipped with an ONYXWorks workstation from NOTIFIER, capable of displaying site-specific graphics for each facility and its fire alarm components. Information on any event -- be it a trouble, supervisory or true fire alarm -- is displayed automatically on the workstation in real-time.

When Young is away from his office, the workstation can send emails to multiple recipients, immediately notifying of any system events occurring in the district and greatly improving department response times.

Employing space-age technology such as this is not surprising for a school district that essentially surrounds NASA’s Houston Space Center.

“Like most schools, we have an Intranet. All of our buildings are connected with fiber Ethernet,” says Young.

The flexibility of the NOTIFIER system allowed Cloninger to use that fiber network, piggybacking on the existing framework, to deliver real time information to Young’s office on the fire alarm systems throughout the district.

“By using that network, I can put a workstation in one location and monitor what’s happening at all of the schools. Being able to reside on an Ethernet network made it really easy to connect point-to-point-to-point,” says Cloninger. “That’s monitoring – it’s the ability to see what’s happening out there versus getting a call from a monitoring company saying “You’ve got trouble at Clear Creek High School.””

The true enabling technology, says Cloninger was NOTIFIER’s embedded gateway. ONYXWorks is designed to allow a combination of different technologies to tie into the network and be monitored on the same workstation. It features intelligent gateways to facilitate modular system integration, allowing for the continued expansion of the workstation’s capabilities and its network functions. These gateways add more flexibility when integrating building operations and communicating over a local Ethernet or wide-area TCP/IP network.

According to FireTron Account Manager Richard Phillips, “We were able to go in and very easily add an embedded gateway in each location, tie into their existing Ethernet and monitor that [fire alarm] control panel.”

FACILITY MANAGEMENT EFFICIENCIES

A variety of ONYX Series NFS2-640 and NFS2-3030 fire alarm control panels from NOTIFIER were installed throughout the district’s facilities. Performing such a sizeable upgrade in multiple phases assisted not only with budgeting, but scheduling installation and testing around class times and other events.

The backward compatibility of NOTIFIER technology kept some costs down, says Phillips. When each panel was replaced, most of the existing signaling line circuits – wire and devices – were kept in place and used with the new fire alarm systems.

“It was simply a question of popping off the old panel and popping on the new one,” Phillips says. “That makes it very attractive for a panel upgrade.”

To give a sense of scale, Cloninger described the installation at one of the facilities, a combined campus including elementary, middle and high school students. An assortment of 700+ smoke detectors, 150 pull stations, 100+ duct detectors and 50+ heat detectors were all networked to two NFS2-640 panels and one NFS2-3030 – all of which communicate back to the ONYXWorks workstation in Young’s office.

Cloninger says Young has already begun to enjoy efficiencies from the new system. When he gets a call from maintenance at a building regarding a system alert, he does not have to dispatch a technician out to the school to decipher the issue. Nearly all of the information he needs is provided by the ONYXWorks workstation. Young also utilizes it to perform random checks of various fire alarm systems to assess current conditions.

“It wasn’t a matter of driving down the street,” says Cloninger. “Sometimes it involved tens of miles. It improved the efficiency of his department tremendously.”

Although Young monitors the entire network remotely, he has learned having a system that is easy-to-use is crucial to supporting the work of administrators in each building.

“Basically, we wanted to have a simple-to-operate system for the principals and teachers, something that told them where it was and what was going on, something that was easy to maintain,” Young explains.

Monitoring and maintaining such a large number of fire alarm systems can be an overwhelming task. Instant alerts, such as those that indicate when a specific detector needs to be cleaned, can save a tremendous amount of time and greatly reduce false alarms.

“At the ONYX Workstation, he can view those buildings real-time, see what’s going on,” says Cloninger. “And he can see exactly what’s going on with each individual device in that building, if he wants to drill down to that level. He can look at graphics for the school, see where it’s located, see what the status is.”

Working with a brand of fire alarms having a proven track-record of reliability and longevity like NOTIFIER, not to mention simplifying the supervision of student and faculty safety, appear to have enabled Clear Creek School District to set a new standard for K-12 public school fire protection.

For over 60 years, NOTIFIER has been a leader in the fire alarm industry. Today, we are the largest manufacturer of engineered fire alarm systems with over 400 distributors worldwide, and regional support operations on every continent for the flexibility and options your business needs.