

Top 3 Trends in Fire and Safety Detection

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March 12, 2014

When it comes to safety, one can never be too careful.

Smoke detectors required in residential and commercial buildings and advances in technology are making these devices even more effective.

Integrators can cash in on emerging trends to increase profits, revenues and recurring monthly revenues.

Early Warning Systems

Bottom line: the sooner a detector can sense a fire, the more likely those in danger are to survive. Products such as Hochiki's FireNET and System Sensor's FFAST aspirating smoke detectors have a high sensitivity to the smallest amounts of smoke. They are over 10 times more sensitive than general point detectors, with built-in fans or pumps that suck in air through a piping system and into a laser sampling chamber.

The chamber is based on a nephelometer that detects the presence of smoke particles suspended in air by detecting the light scattered by them in the chamber. This means that it can detect smoke before it is even seen, and not get confused by dust.

These types of detectors can be used in lieu of spot detectors, which can be costly. And they are great for certain atmospheres — like those with a lot of moisture — as they can withstand corrosion. These smart systems will send an alert if its ability to detect smoke is compromised.

“The early warning smoke sensing systems open up a whole new market for integrators,” says Bailey. “They can add cost-effective sensing for prisons, schools, institutions, tall atriums, elevator shafts, museums and places where spot smoke detection may be obtrusive or ugly. They can be hidden and be discreet.”

In a blog, Hochiki also notes that aspirating fire detection is considered a perfect solution for healthcare facilities where large amounts of sick and incapacitated people need to be evacuated in emergency situations. Through internet connectivity, facilities such as this will be alerted and can act fast and efficiently.

Internet Connectivity

Devices such as the aspirating detector are using internet TCP/IP connectivity to deliver information to users. The devices can be networked together and get onto the client's local landline or interface to other IP connected transceivers, transmitters, communication devices, email clients, etc. And of course they are physically tied to conventional fire alarm panels, as well.

The FFAST system by System Sensor, for example, can send up to six individual email notifications that will identify which unit is the initiating device, the location and details of the event. This provides the responding personnel the information necessary to investigate, run their operations efficiently and mitigate risk.

“Traditional POTs phone lines are going away and dealers are being forced to find alternative means of communication to a central station,” says Craig Summers, national account manager for Potter Electric Signal. “NFPA 72 now requires this as well. IP is one effective alternative.”

And using IP means recurring monthly revenue opportunities.

“Dealers can increase RMR by eliminating dedicated phone line costs paid by the end user, and convert the end user over to IP,” says Summers. “The dealer charges more for IP monitoring, but the end user is paying less overall due to the elimination of the phone line costs.”

President of Minnesota-based Cadgraphics, Inc., Dan Horon, says his software, RescueLogic, uses an Ethernet connection. It converts messages from a control panel into data that can be viewed on computers connected to the network.

While conventional fire alarm systems usually rely on initiating device circuits that use dedicated copper wiring to connect a control panel to a series of devices, signaling line circuits are newer to the alarm industry and assign “addresses” to devices on the circuit, thereby providing more information about the location of an incident and status of a device.

“Ethernet has a lot more capability of reporting potential problems than fire alarm designers ever considered,” says Horon, adding that his software transmits information about an incident and relevant floor plans to computers. “To a lot of end users, it seems like a real disadvantage to not have more information than what an LCD screen of an alarm panel gives them.”

The Power of Touch

No matter if you are using gas detectors, smoke detectors or pull stations, touchscreen panels will allow end-users to see exactly what’s going on in an emergency situation.

Touchscreens can allow users to:

- See exactly where an alert occurs
- Get device type information (pull station, smoke detector, etc.) and see how many devices were triggered
- See system malfunctions, such as dust and voltage interference
- Disable devices

Gamewell-FCI by Honeywell has introduced the S3 Series fire alarm control panel that features this kind of display. The product can be used as a standalone system or as part of an extensive network serving the fire protection and emergency communication needs of an individual building or a multi-building campus.

For the greatest impact, companies should make these panels programmable, so end-users can navigate them with ease. The easier they are to navigate, the greater number of purchases.

And these trends are just the beginning.

“There are always new smoke detection trends developing to catch smoke or fires at the earliest detections,” says Bailey.

Other trends to keep tabs on include infrared detection, visible sensors and video thermal imaging cameras.

Talk to ESX exhibitors about these trends and how you can profit from them.

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