HOW TO TRANSITION LIFE SAFETY SYSTEMS FROM PLAIN-OLD TELEPHONE SERVICE (POTS) TO NEW TECHNOLOGY

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CHALLENGE

For years, the alarm industry both for security and fire alarm systems have depended on plain-old telephone service (POTS) lines for communications between customer sites and the monitoring stations. The telephone companies successfully petitioned the Federal Communications Commission (FCC) to abandon the majority of these old POTS lines, due to high maintenance costs when compared to an ever-shrinking user base as society continues to transition to cable – coaxial or fiber optic – and cellular communications.

Because POTS lines are no longer going to be supported and maintained, monitored fire alarm systems must look to alternative approaches to maintain required monitoring of their functions and status.

BEST PRACTICE IMPLEMENTED

There are many alternative methods available to replace the older technologies that have been used for communication with the monitoring centers. The older one-way, two-way and master-box systems, as well as the DACT communicators, have proven reliable over time, but as technology is changing, the foundation – POTS lines – for these systems is being phased out. In today's new construction and system retrofits, the preferred communications methods are internet or cellular radio-based. This allows the communications to be conducted without the need for the legacy POTS lines that are disappearing.

For many thousands of existing retail facilities, change in the way these systems communicate to the monitoring station is inevitable – the phone dialers need to be changed to work with the new technology. When these dialers are changed over, every initiating device, such as the smoke detectors, pull stations and supervisory switches, needs to be functionally tested to ensure that the signal still transmits across the new system to the monitoring company – an extensive investment in technician labor.

Retailers should conduct the migration based on a predetermined plan or schedule, and one that specifically arranges the dialer replacement to occur simultaneously with the annual fire alarm inspection. This approach eliminates duplicate work and leverages the labor already involved in the annual fire alarm inspection to double as the testing for the new dialer communication path to the monitoring center. This requires that the retailer have an understanding and documented record of the due dates for their annual fire alarm inspections, and shares that information with the company hired to perform the changing of the dialers.

There are other options to carry these alarm signals from site to center, including internet and IP network paths – voice over IP – and while these may appear very attractive at first consideration, there are other factors that must be taken into account. Fire alarm communications entails more than just "plugging into the network," because there are specific redundant power requirements and security issues that most IT departments would rather not face. There is also the issue of the quality of the signal going across the line to convey thorough and accurate information. As a result, the cellular approach is generally preferred and can be streamlined by choosing a product that is easy to install and consistent across the entire store portfolio to facilitate ease of maintenance.

RESULTS OF THE BEST PRACTICE

Utilizing a pre-determined plan that follows the annual fire alarm inspection schedule allows for the smoothest transition possible, but it is critical that the planning starts well in advance. This includes creating a phased capital expenditures budget for the facilities being changed out over time. It also allows for necessary time to get "buy in" from any other sectors of the company that may not normally be involved in the fire alarm systems – such as coordination with the IT team if an internet-based approach is chosen.

Lastly, this investment will have a long duration and lifespan. The new technology should also allow for years of reliable service without having to do another wide-scale upgrade for some time. The current technology that's being phased out has been in use for over 40 years, for example.

VERIFICATION OF EFFICIENCY AND/OR SAVINGS CAPTURED

By coordinating the change out of the dialers with the annual fire alarm inspection, there are significant cost savings to be derived in the process. While there will still be the monthly cost of the monitoring entity, and the cost of the cellular connections, the monthly charge associated with the two POTS lines will be eliminated in the process, which will typically result in a modest net monthly cost reduction.

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