

By VAWN HIMMELSBACH

Why security can play second fiddle to fire alarm systems

MINDING THE SECURITY-SAFETY

gap



We've all seen movies where the bad guy trips the fire alarm, slips into a building unnoticed and steals a gigantic diamond or pile of cash. While that may oversimplify the situation, there are real issues with the integration of security and fire alarm systems — and some argue that not enough attention is being paid to the potential risks.

Unlike an electric strike, electrified panic bar or mortise lock, a maglock will keep doors closed from both directions. That means, within the national building code, there are a number of regulations about using maglocks in commercial buildings to ensure they don't lock people in during an emergency.

During a power failure or fire alarm, all maglock doors must open, which can create a gap in security (allowing outsiders, for example, to gain access to high-secure areas) if exiting and locking requirements are not carefully planned. On the other hand, electric strikes remain locked, so there may be cases where employees become trapped in a high-secure area such as an IT closet.

In theory, security and fire alarm systems work on the same basic principle, says James Sanford, security consultant with Calgary-based Stebnicki + Partners. They're both trying to detect an event and report it to the appropriate people. While the events are different in nature, there are similarities between the types of detectors used. For example, motion detectors that use infra-red or heat detection for people are similar to infra-red heat detectors for fire. And while one might assume there would be no technological barriers to having the systems work together, in practice, they rarely do.

National and local building codes view fire alarm systems as pure "life safety" systems, which are heavily regulated to ensure builders take every reasonable precaution to keep people safe, he says. On the other hand, security systems are primarily viewed as systems

for saving equipment and materials. That means security is not regulated through the building code, except where it might interfere with the "life safety" features of the fire alarm system. "In regulatory matters, fire alarm systems and life safety code requirements trump security in almost every situation," says Sanford.

A Canadian fire alarm company once tried to fully integrate a fire alarm system with a security system at the device level using the same controllers and software, and went so far as to install several beta sites across the country. While in theory the two systems worked through the detection and reporting of fire alarm and security events, there were a number of regulatory hurdles to overcome.

If someone wanted to make a change to the alarm system, they would have to employ a certified fire alarm technician. "And as anyone in the industry will know, if you are highly trained in fire alarm systems, you probably aren't also highly trained in security systems," he says. Any time they made anything other than a minor change to the alarm system, they would have to re-verify through an engineer that the system still met building code fire alarm regulations. As a result, the company soon stopped promoting its integrated security system using the fire panel as a controller.

The national fire code is part of the overall national building code, but it's interpreted differently province to province. "I deal with national contracts, but in Toronto it seems to be the most emotionally constipated process in the country," says Gord Chizmeshya, senior account executive of national and enterprise solutions with Intercon Security.

Based on the fire code, electromagnetic locking devices must release on three conditions: if there's a standard power failure, if there's a fire panel power failure or if a fire alarm goes off. In any of these scenarios, all maglocks must release, purely in the interest of life safety and facilitating evacuation.

"Traditionally the bad guys knew that all they had