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Real-time communication during an emergency is critical - by Andy Shanahan

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Andy Shanahan

Since 2001, Mass Notification Systems (MNS) have become prevalent. Why? Building owners and risk managers understand the potential impact of non-fire related emergencies in their facilities. Real-time communication during an emergency is critical and a comprehensive MNS allowing communication over a variety of mediums, including in-building paging, email, text messaging and social media has become the industry standard. An increasingly common method to provide in-building notification is to utilize the existing fire alarm system.

Using a fire emergency voice/alarm communication system (EVACS) as a component of an MNS is a cost-effective solution as it eliminates the need for a separate communication system within a building. Unfortunately, to effectively provide emergency communications during non-fire events, it's not appropriate to simply have an EVACS fire alarm system.

NFPA 72, which governs fire alarm and MNS design, permits the use of an EVACS for mass notification only after a risk analysis has been completed and the building's emergency response plan has been approved by the local jurisdiction. Fire alarm systems are designed to notify tenants of a fire-event; and using them in a non-fire event without proper risk analysis and a comprehensive plan can create communication and efficacy issues.

Proper risk analysis and an emergency response plan are also important because they identify potential emergencies and determine how the MNS can and should be used during each event. Certain events must be prioritized over others, allowing communication channels to remain open and effective in an emergency. Identification of potential emergencies and the response capabilities of the EVACS must also be tailored to the specific organizations, locations, and various languages and cultures. Building owners that believe their traditional EVACS system is a tool for emergency communication may find they have limited control over the system when an emergency arises.

Who can perform the risk analysis? A fire alarm designer or electrical engineer has the required expertise, s/he may complete the risk analysis as part of the design process. NFPA 72 offers

requirements and guidance for how to perform these analyses. If the designer does not feel comfortable, or the owner is looking for a designer with more specific expertise, a fire protection engineer can also assist.

Use of a fire alarm system for in-building emergency communication can be a powerful and cost-effective tool. A risk analysis is code-required and can be used to greatly improve the efficacy of the system and increase occupant safety.

Andy Shanahan is a senior project manager at WB Engineers+Consultants, Boston.