UNIVERSITY OF ARKANSAS

Facilities Management

7/9/2024

MEMORANDUM

Communication Methods for Alarm Systems & Two-way Communication

As of July 9, 2024, the University of Arkansas no longer supports using plain old telephone service (POTS) or networked systems (IP) as a reliable transmission means for fire alarms and two-way emergency communications.

Background

Fire alarms have traditionally used a Digital Alarm Communicator Transmitter (DACT) to send signals from the fire panel to the receiver at the central station. DACT relied on two standard telephone lines to transmit fire alarm data. However, the 2013 edition of NFPA 72 started to require that DACTs be connected to one telephone line, with the second pathway being another technology (performance-based, one-way radio, or two-way radio).

NFPA 72 currently recognizes four methods of communication from the protected premises to the supervising station for fire alarm systems: Performance-Based Technology, Digital Alarm Communicator Systems, Two-Way Radio Frequency (RF) Multiplex, and One-Way Private Radio Alarm Systems.

Fire Alarms: Performance-Based Technology (Cellular + Cellular)

Effective immediately, all new buildings and buildings undergoing major renovations shall pursue performance-based compliance via a **dual pathway cellular communicator**. Consistent with NFPA 72 – 22, Article 26.6.2.2 listed equipment using alternate communications methods that provide a level of reliability and supervision consistent with the requirements of Chapter 10, and the intended level of protection shall be accepted by the Campus Fire Marshal.

- Cellular carriers shall be ATT/FirstNet as the primary and Verizon as the secondary (FirstNet is an ATT affiliate providing dedicated service for first responders).
    - There is a state contract # SP-20-0035 with links to both carriers.
- Supervising Station: Triple-S Alarm Co., 2820 Cantrell Road, Little Rock, AR 72202 Phone: (501) 664-4599, transmission then to UAPD.
- Secondary Power: Must provide 24 hours of secondary power on standby and then operate the system for at least 5 minutes under emergency conditions (15 minutes for emergency voice/alarm communication systems). If a generator is used for secondary power, batteries are still required, but only need to provide capacity for four hours; enough time to get the generator operational if there is an issue.

- The Cellular Communicator (provided by IDIQ contract) comes with a battery pack and can be added to existing equipment.
- Exterior receivers shall be protected from damage by static discharge and lightning. (BELL as an example.)

Code Required Two-way communication (Cellular Communicator)

Effective immediately, all new buildings and buildings undergoing major renovations shall install cellular communicators instead of copper phone lines for all code-required 2-way communication systems such as Elevators, Stairways, Areas of Refuge, Elevator Landings, etc.

Cellular communicators serving elevators shall be compatible with the elevator make/model and provide a 4-hour battery backup. Each elevator shall have an assigned phone number.

Determination by Project Phase:

(1) Projects in the Design or Bidding phase shall incorporate these standards into the bid documents (by Addendum as needed).

(2) Projects currently under Construction shall prepare a Proposal Request to reflect this change for cost evaluation by FAMA.

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