NFPA Supervising Station Communication Methods

The Town of Prosper recognizes the rapidly retreating support of traditional analog copper based telephone communications methods in favor of newer transmission technologies with their attendant advances in communication capability. In consideration of the impact these advances must have on supervising station fire alarm system communication capabilities now and into the future, the Town of Prosper Embraces and promotes the use of listed equipment using alternate communication methods described in chapter 26 of NFPA72 2013-2016 editions.

All methods of communications between the protected premises and a Listed/Approved Supervising Station are accepted in the Town of Prosper as long as they comply with:

- Federal Communications Commission Rules & Regulations as applicable
- The manufacturers product as Listed and/or F.M. Approved for such Services
- If providing a “Performance Based Design”, it is compliant with all of the above, reviewed and approved by a Registered Fire Protection Engineer and Acceptable to the A.H.J.
- Compatibility between the manufactured product and the supervising station

If you require further clarification please consult and provide this document to your registered Alarm Planning Superintendent (APS), registered Fire Protection Engineer (FPE), manufacturers’ product or the third party supervising station representative.

Word of Caution:

FCC ruling 14-5A1 dated 01-30-2014 established regulations that will accommodate the nation’s telephone service providers to begin the phasing out of hard wire (copper) telephone lines (POTS) and Publicly Switched Telephone Networks. Accordingly; the current edition of NFPA 72 recognizes this action and has established restrictive methods of communications utilizing a Digital Alarm Communications System (DACT). Please reference NFPA 72, Chapter 26, section 26.6.3.2 Digital Alarm Communicator Systems for clarity.

Further Clarification Excerpts from NFPA 72, 2016 Edition Handbook


26.6 Communications Methods for Supervising Station Alarm Systems. There are five communications methods addressed in the Code. The first communications method is a digital alarm communicator system (DACS), addressed in 26.6.4, which uses a DACT at the protected premises. The second method is a more general category of performance-based communications methods, addressed in 26.6.3, which uses what was formerly called “other technology” such as an “IP communicator” at the protected premises. The third method is the category known as “legacy” transmission technologies, which are no longer being installed and are addressed only conceptually in 26.6.3 (See also A.26.6.3). The fourth and fifth communications methods are two types of radio systems, addressed in 26.6.5, that use radio transmitters at the protected premises. All these communications methods are addressed in more detail in subsequent commentary.

Exhibit 26.9 illustrates the communications methods addressed by the Code.
26.6.1 Application.

26.6.4.1.4 Transmission Channels.

(A) A system employing a DACT shall employ one telephone line (number). In addition, one of the following transmission means shall be employed:

   (1) One-way private radio alarm system
   (2) Two-way RF multiplex system
   (3) Transmission means complying with 26.6.3

Exception: Where access to two technologies in the preceding list is not available at the protected premises, with the approval of the authority having jurisdiction, a telephone line (number) shall be permitted to be used as the second transmission means. Each DACT shall be programmed to call a second DACR line (number) when the signal transmission sequence to the first called line (number) is unsuccessful. The DACT shall be capable of selecting the operable means of transmission in the event of failure of the other means. Where two telephone lines (numbers) are used, it shall be permitted to test each telephone line (number) at alternating 6-hour intervals.

NFPA 72 - Commentary

The purpose of 26.6.4.1.4 is to provide the DACT with two reasonably reliable means of connecting to the DACR. Note that the Code has no jurisdiction over utility-provided services such as telephone services. Thus, the Code must rely on the traditionally accepted inherent reliability of all such utility provided services. See also the commentary and the Closer Look feature following A.26.6.4.1.1.

Due to the decreased reliability of both traditional and MFVN (Managed Facilities-Based Voice Network)-based PSTNs (Public Switching Telephone Networks), this requirement was revised for the 2013 edition of the Code to no longer permit the use of a second telephone line (number) as the second transmission means for a DACT. Several of the other choices available in previous editions of the Code for the second transmission means were also removed, either because they are no longer available or were never actually used, such as derived local channel, integrated services digital network (ISDN), and private microwave radio. The traditional cellular telephone service that had to dial a number is also no longer permitted. However, digital cellular radio utilizing ubiquitous 2G, 3G, and 4G wireless networks is capable of meeting the performance-based requirements of 26.6.3.
26.6 Communications Methods for Supervising Station Alarm Systems.

There are five communications methods addressed in the Code. The first communications method is a digital alarm communicator system (DACS), addressed in 26.6.4, which uses a DACT at the protected premises. The second method is a more general category of performance-based communications methods, addressed in 26.6.3, which uses what was formerly called “other technology” such as an “IP communicator” at the protected premises. The third method is the category known as “legacy” transmission technologies, which are no longer being installed and are addressed only conceptually in 26.6.3 (see also A.26.6.3). The fourth and fifth communications methods are two types of radio systems, addressed in 26.6.5, that use radio transmitters at the protected premises. All these communications methods are addressed in more detail in subsequent commentary.

Exhibit 26.9 Illustrates the communications methods addressed by the Code.

26.6.1 Application.

A.26.6.1 Refer to Table A.26.6.1 for communications methods.