



# PROSPER FIRE RESCUE

## FIRE MARSHAL'S OFFICE

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## 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 NFPA 72 2013-2016 & 2019 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 manufacturer's product as Listed and/or F.M. Approved for such Services
- If providing a "Performance-Based Design", it must comply 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 *Publically 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, 2019 Edition Handbook

### National Fire Alarm and Signaling Code Handbook, 2019 Edition

#### 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 a 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 a single telephone line (number). In addition, and 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
- (4) A second telephone line (number), where all of the following are met:
  - (a) Access to one of the technologies in (1), (2), or (3) is not available at the protected premises.
  - (b) The authority having jurisdiction approves the arrangement.
  - (c) The DACT is programmed to call a second DACR line (number) when the signal transmission sequence to the first called line (number) is unsuccessful.
  - (d) The DACT is capable of selecting the operable means of transmission in the event of failure of the other means.
  - (e) Each telephone line is tested in accordance with 26.6.4.1.4(B) or at alternating 6-hour intervals.

### [NFPA 72 – Commentary](#)

Paragraph 26.6.4.1.4 provides 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-based PSTNs, this does not permit the use of a second telephone line (number) as the second transmission means for a DACT. Several of the other transmission choices are not included either because they are no longer available or were never used, such as derived local channel, integrated services digital network (ISDN), and private microwave radio. The traditional cell phone service that had to dial a number is also not permitted. However, digital cellular radio using ubiquitous 2G, 3G, 4G, and 5G wireless networks is capable of meeting the performance-based requirements of [26.6.3](#).

The distinction between a DACS that meets the requirements of [26.6.4](#) and a system using performance-based technology that meets the requirements of [26.6.3](#) is particularly important for designers and authorities having jurisdiction to understand. In many cases, this second system employs a listed DACT connecting to a listed module (sometimes called an IP communicator) that transmits as a packet-switched network through an IP broadband data connection to the Internet. See the commentary following [Section 26.6](#). Both systems must comply with the distinct requirements of the applicable section of the Code. The requirements of [26.6.4](#) do not need to be applied to systems addressed under the requirements of [26.6.3](#) even though they may employ a listed module interfacing with a listed DACT. The equipment manufacturer's published instructions are required to be followed in these situations, in addition to the requirements of [26.6.3](#).

It is estimated that the migration to performance-based technologies will continue until the vast majority of DACTs use IP broadband data communications technology or a yet-to-be-developed equivalent.

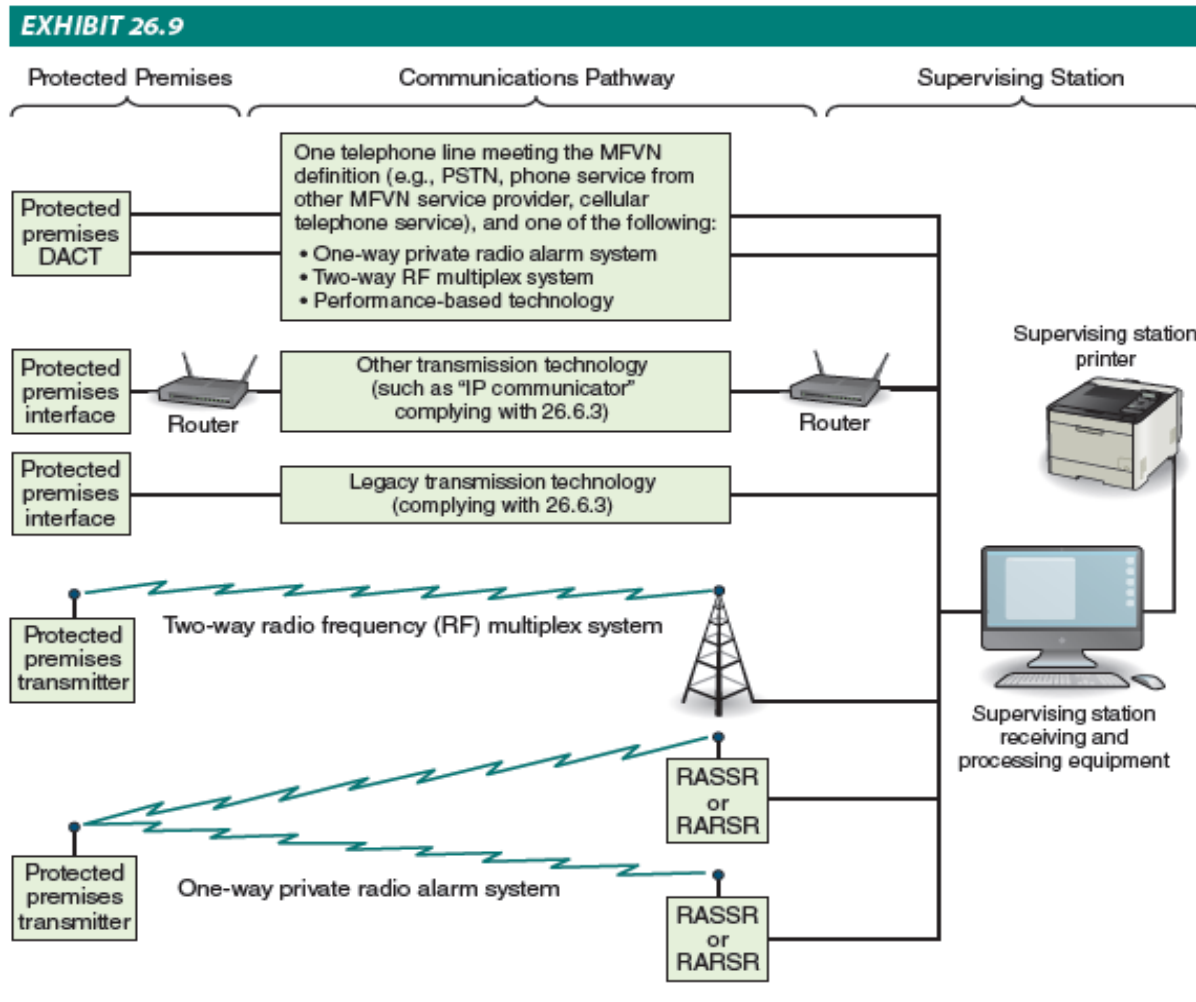
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Exhibit 26.9 illustrates the communications methods addressed by the Code.

### 26.6.1\* Application.

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



Communications Methods for Supervising Station Alarm Systems.