# Second Revision No. 5148-NFPA 72-2023 [ Detail ]

**26.6.4.2.1.3***

An MFVN provider (voice or digital) shall be authorized by the regulating authority as a common carrier.

**A.26.6.4.2.1.3**

Communication carriers have equipment that is normally installed in accordance with Federal Communications Commission–approved (FCC-approved) telecommunications network standards meeting industry standards for safety, security, and environmental protection as required by the specific installation situation. Examples of authorized common carriers include Incumbent Local Exchange Carriers (ILEC), Local Exchange Carriers (LEC), Competitive Local Exchange Carriers (CLEC), and FCC-licensed cellular service carriers as defined by the FCC to provide telecommunication services for the state or jurisdiction in which the service will be rendered.

**26.6.4.2.1.4**

Acknowledgments to the protected premises for alarm, supervisory, or trouble signals shall only be initiated by the supervising station.

**26.6.4.2.1.5**

Communication equipment used for transmission of fire alarm signals that receives primary power from the protected premises shall meet the requirements of 26.6.3.13.

## Submitter Information Verification

**Committee:** SIG-SSS

**Submittal Date:** Tue Aug 01 09:52:26 EDT 2023

## Committee Statement

**Committee Statement:** During the first revision meeting of the SIG-SSS Technical Committee there was identified an immediate need to begin to address the technical advancements and variety of methods of transmitting and processing important fire alarm system signals to supervising stations while at the same time providing continued recognition of legacy methods still in use for transmitting fire alarm system signals to supervising stations. As a result of numerous Task Group meetings this second revision is one of many second revisions intended to address changes that reflect both existing and performance-based technologies considered reasonably reliable and acceptable for the important task of transmitting fire alarm signals to supervising stations and ultimately for notification and response by emergency public safety agencies. In the case of this second revision the following points are the specific basis for the change.

1. Clarify the authorizing authority for common carriers.

2. Specifies if the communication equipment receives power from the protected premises that it must be provided with secondary power.

3. Correlates with the performance based requirements.

**Response Message:** SR-5148-NFPA 72-2023

Public Comment No. 184-NFPA 72-2023 [New Section after 26.6.4.2.1.2]

Public Comment No. 239-NFPA 72-2023 [New Section after 26.6.4.2.1.2]

Public Comment No. 237-NFPA 72-2023 [New Section after 26.6.4.2.1.2]

Public Comment No. 64-NFPA 72-2023 [New Section after 26.6.4.2.1.2]

## Second Revision No. 5104-NFPA 72-2023 [ Section No. 3.3.82 ]

**3.3.82*** Digital Alarm Communicator Transmitter (DACT).

A fire alarm system component at the protected premises to which ~~initiating devices or groups of devices~~ a fire alarm control unit or a group of control units are connected that transmits signals via loop start technology . ~~The DACT seizes the connected telephone line, dials a preselected number to connect to a DACR, and transmits signals indicating a status change of the initiating device.~~ (SIG-SSS)

**A.3.3.82** Digital Alarm Communicator Transmitter (DACT).

The DACT uses legacy POTS lines, emulated lines from an MFVN, listed communications equipment, or any combination thereof to connect and transmit signals to a DACR to indicate a status change of the fire alarm system. (SIG-SSS)

### Supplemental Information

| File Name | Description | Approved |
|---|---|---|
| Chapter_3_3_3_82_SR-5104.docx | Chapter_3_3_3_82_SR-5104 | |

### Submitter Information Verification

**Committee:** SIG-SSS
**Submittal Date:** Wed Jul 26 10:32:36 EDT 2023

### Committee Statement

**Committee Statement:** During the first revision meeting of the SIG-SSS Technical Committee there was identified an immediate need to begin to address the technical advancements and variety of methods of transmitting and processing important fire alarm system signals to supervising stations while at the same time providing continued recognition of legacy methods still in use for transmitting fire alarm system signals to supervising stations. As a result of numerous Task Group meetings this second revision is one of many second revisions intended to address changes that reflect both existing and performance-based technologies considered reasonably reliable and acceptable for the important task of transmitting fire alarm signals to supervising stations and ultimately for notification and response by emergency public safety agencies. In the case of this second revision the following point is the specific basis for the change.

1. Clarified that DACTs are a legacy transmission means based on loop start technology.

**Response Message:** SR-5104-NFPA 72-2023

Public Comment No. 47-NFPA 72-2023 [Section No. 3.3.82]

## Second Revision No. 5147-NFPA 72-2023 [ New Section after 3.3.155.2 ]

**3.3.157*** Intermediary Service Provider.

An entity that receives fire alarm system signals from a protected premises for the purpose of retransmitting the signals to the supervising station and for other business purposes. (SIG-SSS)

**A.3.3.157** Intermediary Service Provider.

The following are examples of services provided by an intermediary service provider:

(1) Signals from a protected premises traverse a path through a communications channel(s) to the intermediary service provider's network servers, which automatically retransmit signals through the communications channel(s) to the responsible supervising station.

(2) The intermediary service provider provides supervision of the connection between itself, the protected premises, and the supervising station.

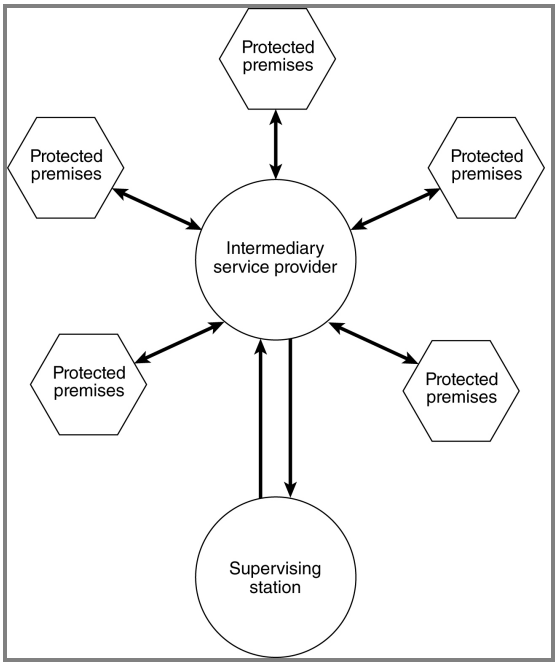
(3) The receipt of an alarm by an intermediary service provider signal triggers the following:

(a) Immediate retransmission of the signal to the supervising station

(b) Delivery of services not required by this Code, such as notification to a list of supplemental contacts specified by the fire alarm system owner or predictive maintenance analytics

Figure A.3.3.157 depicts the location of an intermediary service provider in the communications cloud relative to a protected premises and a supervising station. (SIG-SSS)

**Figure A.3.3.157 Typical Intermediary Service Provider Concept.**




## Supplemental Information

| File Name | Description | Approved |
|---|---|---|
| Chapter_3_3_3_156_SR-5147.docx | Chapter_3_3_3_156_SR-5147 | |

## Submitter Information Verification

**Committee:** SIG-SSS

**Submittal Date:** Tue Aug 01 09:36:15 EDT 2023

## Committee Statement

**Committee Statement:** Currently, intermediary services providers are being used to communicate fire protection signals from the protected premises to the supervising stations. Requirements were needed to ensure that when these signals pass through the intermediary service provider servers they are processed in a reliable and supervised manner, and do not bypass the supervising station.

**Response Message:** SR-5147-NFPA 72-2023

Public Comment No. 169-NFPA 72-2023 [New Section after 3.3.154]

## Second Revision No. 5106-NFPA 72-2023 [ Section No. 3.3.170 ]

**3.3.172*** Managed Facilities-Based Voice Network (MFVN).

A physical facilities-based network capable of transmitting real-time signals with formats unchanged that is managed, operated, and maintained by the ~~service provider~~ regulated communications carrier to ensure service quality and reliability from the subscriber location to the supervising station via the public-switched telephone network (PSTN) or interconnection points with other MFVN peer networks ~~or the supervising station~~ . (SIG-SSS)

**A.3.3.172** Managed Facilities-Based Voice Network (MFVN).

Managed facilities-based voice network (MFVN) service is functionally equivalent to traditional public-switched telephone network–based ( PSTN-based) service~~s~~ provided by authorized common carriers ~~(~~ [i.e., public utility telephone companies~~)~~ , Incumbent Local Exchange Carriers (ILEC), Local Exchange Carriers (LEC), Competitive Local Exchange Carriers (CLEC), and other Federal Communications Commission–licensed (FCC-licensed) carriers offering interconnection to facilities and unbundled network elements in order to provide such telecommunications services], with respect to dialing, dial plan, call completion, carriage of signals and protocols, and loop voltage treatment and provides all of the following features:

(1) A loop start telephone circuit service interface.

(2) Pathway reliability that is assured by proactive management, operation, and maintenance by the MFVN provider.

(3) ~~8~~ Eight hours of standby power supply capacity for MFVN communications equipment, either located at the protected premises or field deployed. Industry standards followed by the authorized common carriers ~~(public utility telephone companies), and the other communications service providers~~ that operate MFVNs~~,~~ specifically engineer the selection of the size of the batteries, or other permanently located standby power source, in order to provide 8 hours of standby power with a reasonable degree of accuracy. Of course, over time, abnormal ambient conditions and battery aging can ~~always~~ have ~~a potentially~~ an adverse effect on battery capacity. The MFVN field-deployed equipment typically monitors the condition of the standby battery and signals potential battery failure to permit the communications service provider to take appropriate action.

(4) ~~24~~ Twenty-four hours of standby power supply capacity for MFVN communications equipment located at the communications service provider's central office.

(5) Installation of network equipment at the protected premises with safeguards to prevent unauthorized access to the equipment and its connections.

(6) Carrier communications and virtual signaling traffic traveled over a fully managed network, such as network facilities owned or leased by a private network connection or a combination thereof.

When providing telephone service to a new customer, MFVN providers give notice to the telephone service subscriber of the need to have any connected alarm system tested by authorized fire alarm service personnel in accordance with 26.6.2.6 and applicable requirements of Chapter 14 to make certain that all signal transmission features have remained operational. These features include the proper functioning of line seizure and the successful transmission of signals to the supervising station. In this way, the MFVN providers assist their new customers in complying with a testing procedure similar to that outlined in 26.2.7 for changes to providers of supervising station service.

The evolution of the deployment of telephone service has moved beyond the sole use of metallic conductors connecting a telephone subscriber's premises with the nearest telephone service provider's control and routing point (wire center). In the last 25 years, telephone service providers have introduced a variety of technologies to transport multiple, simultaneous telephone calls over shared communication pathways. ~~In order to~~ To facilitate the further development of the modernization of the telephone network, the authorized common carriers (public utility telephone companies) have transitioned their equipment into ~~a managed facilities-based voice network (~~ an MFVN~~)~~ capable of providing a variety of communications services in addition to ~~the provision of~~ traditional telephone service.

Similarly, the evolution of digital communications technology has permitted entities other than the authorized common carriers (public utility telephone companies) to deploy robust communications networks and offer a variety of communications services, including telephone service.

These alternate service providers fall into two broad categories. The first category includes those entities that have emulated the MFVN provided by the authorized common carriers. The second category includes those entities that offer telephone service using means that do not offer the rigorous quality assurance, operational stability, and consistent features provided by an MFVN.

~~The~~ This Code intends to only recognize the use of the telephone network transmission of alarm, supervisory, trouble, and other emergency signals by means of MFVNs.

For example, ~~the~~ this Code intends to permit an MFVN to provide facilities-based telephone (voice) service that interfaces with the premises fire alarm or emergency signal control unit through a digital alarm communicator transmitter (DACT) using a loop start telephone circuit and signaling protocols fully compatible with and equivalent to those used in ~~public switched telephone networks~~ PSTNs . The loop start telephone circuit and associated signaling can be provided through traditional copper wire telephone service (~~POTS —~~ "plain old telephone service", or POTS ) or by means of equipment that emulates the loop start telephone circuit and associated signaling and then transmits the signals over a pathway using packet switched (IP) networks or other communications methods that are part of an MFVN.

Providers of MFVNs have disaster recovery plans to address both individual customer outages and widespread events such as tornados, ice storms, or other natural disasters, which include specific network power restoration procedures equivalent to those of traditional landline telephone services. (SIG-SSS)

## Submitter Information Verification

**Committee:** SIG-SSS

**Submittal Date:** Wed Jul 26 11:01:29 EDT 2023

## Committee Statement

**Committee Statement:** During the first revision meeting of the SIG-SSS Technical Committee there was identified an immediate need to begin to address the technical advancements and variety of methods of transmitting and processing important fire alarm system signals to supervising stations while at the same time providing continued recognition of legacy methods still in use for transmitting fire alarm system signals to supervising stations. As a result of numerous Task Group meetings this second revision is one of many second revisions intended to address changes that reflect both existing and performance-based technologies considered reasonably reliable and acceptable for the important task of transmitting fire alarm signals to supervising stations and ultimately for notification and response by emergency public safety agencies. In the case of this second revision the following points are the specific basis for the change.

1. Providing clarification that the MFVN is a regulated communications service/carrier.

2. The annex language was expanded for clarity of FCC licensed carriers.

**Response Message:** SR-5106-NFPA 72-2023

Public Comment No. 213-NFPA 72-2023 [Section No. A.3.3.170]

Public Comment No. 130-NFPA 72-2023 [Section No. A.3.3.170]

Public Comment No. 172-NFPA 72-2023 [Section No. 3.3.170]

Public Comment No. 48-NFPA 72-2023 [Section No. 3.3.170]

Public Comment No. 225-NFPA 72-2023 [Section No. A.26.6.3.5]

## Second Revision No. 5142-NFPA 72-2023 [ Section No. 26.2.8 ]

**26.2.8** Supervising Station Signal Processing Equipment.

Signal processing equipment located at the supervising station listed to UL 60950-1, *Information Technology Equipment — Safety — Part 1: General Requirements* or UL 62368-1, *Audio/Video, Information and Communication Technology Equipment — Part 1: Safety Requirements* , and used for computer-aided alarm and supervisory signal processing shall not be required to comply with 10.3.5~~provided~~ if it is installed and operated ~~conforming to~~ in accordance with UL 1981, *Central-Station Automation Systems*, within an environment that is maintained at a level within the temperature, humidity, and voltage rating range of the equipment, and the equipment manufacturer's published instructions are available for examination.

## Submitter Information Verification

**Committee:** SIG-SSS
**Submittal Date:** Thu Jul 27 15:31:49 EDT 2023

## Committee Statement

**Committee Statement:** Added an additional publication that is used in the industry.
**Response Message:** SR-5142-NFPA 72-2023

## Second Revision No. 5149-NFPA 72-2023 [ New Section after 26.2.10.4 ]

**26.2.11** Intermediary Service Providers.

**26.2.11.1**

Where an intermediary service provider is used, the requirements of 26.2.11.2 through 26.2.11.4 shall be met.

**26.2.11.2**

Intermediary service providers shall include the services listed in 26.2.11.2.1 through 26.2.11.2.5 .

**26.2.11.2.1***

All communication paths from the protected premises, through the intermediary service provider, to the supervising station shall be supervised at an interval of not more than 60 minutes.

**A.26.2.11.2.1**

Intermediary service providers can use one or more communications paths between a fire alarm system installed at a protected premises and its own facility(ies), and between its own facility(ies) and the supervising station. Permitted pathways can include those cited in 26.6.3 , 26.6.4 , or 26.6.5 .

**26.2.11.2.2**

Failure of any pathway shall be annunciated at the responsible supervising station.

**26.2.11.2.3**

Failure to complete a signal transmission shall be annunciated at the protected premises.

**26.2.11.2.4**

All alarm, trouble, and supervisory signals from fire alarm systems received by an intermediary service provider shall be electronically retransmitted, without delay, to the supervising station responsible for acknowledgement and signal dispositioning.

**26.2.11.2.5**

Routine retransmission of signals from the protected premises to their destination supervising station shall comply with 26.4.4.4 , 26.6.3.3 , and 26.6.3.4 .

**26.2.11.3**

All elements of fire alarm service required by this section shall be provided by a company that has a listing covering these elements.

**26.2.11.4**

Intermediary service provider facilities that support the delivery of signals to a supervising station from a protected premises fire alarm system installed in accordance with this Code shall conform to the construction, fire protection, physical security, cybersecurity, emergency lighting, power, communications infrastructure, and service resiliency requirements for intermediary service providers contained in UL 827, *Central-Station Alarm Services* .

### Submitter Information Verification

**Committee:** SIG-SSS

**Submittal Date:** Tue Aug 01 10:17:17 EDT 2023

## Committee Statement

**Committee Statement:** Currently, intermediary service providers are being used to communicate fire protection signals from the protected premises to the supervising stations. Requirements were needed to ensure that when these signals pass through the intermediary service providers servers, they are processed in a reliable and supervised manner, and do not bypass the supervising station.

**Response Message:** SR-5149-NFPA 72-2023

Public Comment No. 168-NFPA 72-2023 [Section No. 26.7]

## Second Revision No. 5111-NFPA 72-2023 [ Section No. 26.5.7.2 ]

**26.5.7.2**

The status of all alarm, supervisory, and trouble signals shall be noted and recorded at the beginning of each shift or change in personnel .

## Submitter Information Verification

**Committee:** SIG-SSS

**Submittal Date:** Wed Jul 26 12:40:20 EDT 2023

## Committee Statement

**Committee Statement:** The language of the section was revised to comply with the manual of style. It appears that the technical meaning was changed as the requirement to record the status of alarm, supervisory, and trouble signals was inadvertently deleted. The revision corrects the language to require the status of the signals to be recorded at the beginning of each shift or change in personnel.

**Response Message:** SR-5111-NFPA 72-2023

Public Comment No. 142-NFPA 72-2023 [Section No. 26.5.7.2]

## Second Revision No. 5112-NFPA 72-2023 [ Section No. 26.6.1.1 ]

**26.6.1.1**

Section 26.6 shall apply to the following:

(1) Transmitter located at the protected premises

(2)* Transmission channel between the protected premises and the supervising station or subsidiary station

**A.26.6.1.1(2)**

For a fire alarm system that relies on a DACS to establish communications channels between the protected premises and the supervising station via the PSTN or MFVN, the requirement to supervise circuits between the protected premises and the supervising station is considered to be met if the communications channel is periodically tested in accordance with 26.6.4.2.5 . It is not the intent of this section to regulate the PSTN or other MFVNs.

(3) If used, any subsidiary station and its communications channel

(4) Signal receiving, processing, display, and recording equipment at the supervising station

## Submitter Information Verification

**Committee:** SIG-SSS

**Submittal Date:** Wed Jul 26 12:48:37 EDT 2023

## Committee Statement

**Committee Statement:** During the first revision meeting of the SIG-SSS Technical Committee there was identified an immediate need to begin to address the technical advancements and variety of methods of transmitting and processing important fire alarm system signals to supervising stations while at the same time providing continued recognition of legacy methods still in use for transmitting fire alarm system signals to supervising stations. As a result of numerous Task Group meetings this second revision is one of many second revisions intended to address changes that reflect both existing and performance-based technologies considered reasonably reliable and acceptable for the important task of transmitting fire alarm signals to supervising stations and ultimately for notification and response by emergency public safety agencies. In the case of this second revision the following points are the specific basis for the change.

1. Annex material was added for clarification of what is included in the list that are regulated in the DACT section 26.6.1.1.

**Response Message:** SR-5112-NFPA 72-2023

Public Comment No. 136-NFPA 72-2023 [Section No. 26.6.1.1]

Public Comment No. 215-NFPA 72-2023 [Section No. 26.6.1.1]

## Second Revision No. 5116-NFPA 72-2023 [ New Section after 26.6.2.4 ]

**26.6.2.4.4***

Communications pathways shall be permanently identified, as approved by the AHJ, at each connection point from the FACU to the service provider communications equipment.

**A.26.6.2.4.4**

The identification of fire alarm system communications pathways by the building owner or its designees is critical to the integrity and sustainability of these systems. Therefore, the marking of such pathways and their integrated shared equipment is equally important for the integrity of the fire alarm system to make sure that no changes to these pathways at the protected premises are made without proper AHJ notification. Due to the wide variety of circumstances and conditions that might need to be labeled, the means of labeling is left to AHJ approval. Suggested language for the marking or signage of these pathways and shared equipment might include language similar to, “This is part of a communications systems pathway, no changes to this equipment or configurations shall be made without notifying the local AHJ,” or more simply, “Fire communications pathway, notify AHJ BEFORE modification.”

## Submitter Information Verification

**Committee:** SIG-SSS

**Submittal Date:** Wed Jul 26 14:47:48 EDT 2023

## Committee Statement

**Committee Statement:** During the first revision meeting of the SIG-SSS Technical Committee there was identified an immediate need to begin to address the technical advancements and variety of methods of transmitting and processing important fire alarm system signals to supervising stations while at the same time providing continued recognition of legacy methods still in use for transmitting fire alarm system signals to supervising stations. As a result of numerous Task Group meetings this second revision is one of many second revisions intended to address changes that reflect both existing and performance-based technologies considered reasonably reliable and acceptable for the important task of transmitting fire alarm signals to supervising stations and ultimately for notification and response by emergency public safety agencies. In the case of this second revision the following points are the specific basis for the change.

1. To ensure identification of the pathway between the communications carrier and the fire alarm control panel.

**Response Message:** SR-5116-NFPA 72-2023

Public Comment No. 218-NFPA 72-2023 [New Section after 26.6.2.4.3]

Public Comment No. 50-NFPA 72-2023 [New Section after 26.6.2.4]

## Second Revision No. 5151-NFPA 72-2023 [ New Section after 26.6.2.5 ]

**26.6.2.6*** Communications Pathway Management.

Any changes to the communications pathway, communications technologies, or communications hardware at the protected premises shall meet all of the following:

(1) The AHJ shall be notified.

(2) Reacceptance testing shall be performed in accordance with Chapter 14 .

(3) Documentation shall be provided in accordance with Chapter 7 .

(4) Secondary power shall be verified as complying with 26.6.3.13 .

**A.26.6.2.6**

Since many authorities are now requiring change in monitoring permits to verify compliance with new technology configurations, hardware, and programming, it has become important for protected premises and contracted vendors to not only properly identify the communications technologies and hardware to be implemented, but also make sure the application of such technologies and pathways are implemented in conformance with this Code. It is the responsibility of the building owner or its designees to ensure that any changes to the communications pathway, technologies, or hardware at the protected premises are compliant.

## Submitter Information Verification

**Committee:** SIG-SSS

**Submittal Date:** Tue Aug 01 11:38:43 EDT 2023

## Committee Statement

**Committee Statement:** During the first revision meeting of the SIG-SSS Technical Committee there was identified an immediate need to begin to address the technical advancements and variety of methods of transmitting and processing important fire alarm system signals to supervising stations while at the same time providing continued recognition of legacy methods still in use for transmitting fire alarm system signals to supervising stations. As a result of numerous Task Group meetings this second revision is one of many second revisions intended to address changes that reflect both existing and performance-based technologies considered reasonably reliable and acceptable for the important task of transmitting fire alarm signals to supervising stations and ultimately for notification and response by emergency public safety agencies. In the case of this second revision the following points are the specific basis for the change.

1. This revision clarifies that the AHJ should be notified of changes in communications equipment and assure that the signals are transmitted properly via any new communications channels.

2. Back up power must be verified for the newly added communications equipment.

**Response Message:** SR-5151-NFPA 72-2023

Public Comment No. 49-NFPA 72-2023 [New Section after 26.6.2.3]

## Second Revision No. 5118-NFPA 72-2023 [ Section No. 26.6.3.2 ]

**26.6.3.2** Communications Integrity.

~~Provision shall be made to monitor the~~ The integrity of the transmission technology and its communications path shall comply with 26.6.3.2.1 through 26.6.3.2.3 .

**26.6.3.2.1**

Acknowledgments to the protected premises for alarm, supervisory, or trouble signals shall only be initiated by the supervising station.

**26.6.3.2.2**

Communications equipment installed at the protected premises shall comply with 26.6.3.2.2.1 and 26.6.3.2.2.2 .

**26.6.3.2.2.1**

Premises equipment installed to transmit signals shall be listed for the purpose and comply with the applicable requirements of 26.6.3 .

**26.6.3.2.2.2**

Premises equipment initiating signal transmission at the control unit shall be listed independently of the communications technology and be part of the fire alarm system.

**26.6.3.2.3**

Communications service provider equipment installed at the protected premises shall comply with 26.6.3.2.3.1 and 26.6.3.2.3.2 .

**26.6.3.2.3.1**

Communications services equipment from communications service providers, including MFVN providers, shall be listed as communications and information technology equipment and comply with applicable requirements of 26.6.3.12 and 26.6.3.13 .

**26.6.3.2.3.2**

Communications services equipment from communications service providers complying with 26.6.4.2.1.3 and used to transmit signals shall be listed independently of the communications technology used.

## Submitter Information Verification

**Committee:** SIG-SSS

**Submittal Date:** Wed Jul 26 16:09:33 EDT 2023

## Committee Statement

**Committee Statement:** During the first revision meeting of the SIG-SSS Technical Committee there was identified an immediate need to begin to address the technical advancements and variety of methods of transmitting and processing important fire alarm system signals to supervising stations while at the same time providing continued recognition of legacy methods still in use for transmitting fire alarm system signals to supervising stations. As a result of numerous Task Group meetings this second revision is one of many second revisions intended to address changes that reflect both existing and performance-based technologies considered reasonably reliable and acceptable for the important task of transmitting fire alarm signals to supervising stations and ultimately for notification and

response by emergency public safety agencies. In the case of this second revision the following points are the specific basis for the change.

1. The requirements for listing were added to improve fire alarm reliability

2. Delineates between the premises and the service provider equipment.

**Response Message:** SR-5118-NFPA 72-2023

Public Comment No. 51-NFPA 72-2023 [Section No. 26.6.3.2]

Public Comment No. 174-NFPA 72-2023 [New Section after 26.6.3.2]

Public Comment No. 222-NFPA 72-2023 [Section No. 26.6.3.2]

Public Comment No. 212-NFPA 72-2023 [New Section after 26.6.2.5]

## Second Revision No. 5121-NFPA 72-2023 [ Section No. 26.6.3.3 ]

**26.6.3.3** Single Communications Path.

~~Unless prohibited by the enforcing authority, governing laws, codes, or standards, where a single communications path is used, the following requirements shall be met:~~

~~The path shall be supervised at an interval of not more than 60 minutes.~~

~~A failure of the path shall be annunciated at the supervising station within not more than 60 minutes.~~

~~The failure to complete a signal transmission shall be annunciated at the protected premises in accordance with Section 10.15 .~~

**26.6.3.3.1**

A single communications path shall be permitted unless prohibited by the AHJ or by governing laws, codes, or standards.

**26.6.3.3.2**

Where a single communications path is used, the following requirements shall be met:

(1) The path shall be supervised for integrity to ensure end-to-end communications at an interval of not more than 60 minutes.

(2) A failure of the path within 60 minutes shall be annunciated in accordance with Section 10.15 .

## Supplemental Information

| File Name | Description | Approved |
|---|---|---|
| Chapter_26_26_6_3_3_SR-5121.docx | Chapter_26_26_6_3_3_SR-5121 | |

## Submitter Information Verification

**Committee:** SIG-SSS

**Submittal Date:** Wed Jul 26 16:34:00 EDT 2023

## Committee Statement

**Committee Statement:** During the first revision meeting of the SIG-SSS Technical Committee there was identified an immediate need to begin to address the technical advancements and variety of methods of transmitting and processing important fire alarm system signals to supervising stations while at the same time providing continued recognition of legacy methods still in use for transmitting fire alarm system signals to supervising stations. As a result of numerous Task Group meetings this second revision is one of many second revisions intended to address changes that reflect both existing and performance-based technologies considered reasonably reliable and acceptable for the important task of transmitting fire alarm signals to supervising stations and ultimately for notification and response by emergency public safety agencies. In the case of this second revision the following points are the specific basis for the change.

1.This section is revised in accordance with the Manual of Style and does not include any technical changes.

**Response Message:** SR-5121-NFPA 72-2023

Public Comment No. 56-NFPA 72-2023 [New Section after 26.6.3.3]

## Second Revision No. 5134-NFPA 72-2023 [ Section No. 26.6.3.4 ]

**26.6.3.4** Multiple Communications ~~Paths~~ Pathways .

~~If~~ Where multiple transmission ~~paths~~ pathways are used, the following requirements shall be met:

(1) Each ~~path~~ pathway shall be supervised ~~within~~ for integrity to ensure end-to-end communications at an interval of not more than 6 hours.

~~The failure of any path of a multipath system shall be annunciated at the supervising station within not more than 6 hours.~~

(2) Multiple communications ~~paths~~ pathways shall be arranged so that a single point of failure ~~shall~~ on one pathway does not cause ~~more than a single path to fail~~ the failure of other pathways .

(3) ~~The failure~~ Failure to complete a signal transmission shall be annunciated ~~at the protected premises~~ in accordance with Section 10.15.

## Submitter Information Verification

**Committee:** SIG-SSS

**Submittal Date:** Thu Jul 27 11:16:15 EDT 2023

## Committee Statement

**Committee Statement:** This revision clarifies that multiple pathways must be arranged so that a failure on one pathway does not cause a failure of any other pathway. NFPA 72 only regulates on premises pathways and equipment beyond the premises is outside the scope of NFPA 72.

**Response Message:** SR-5134-NFPA 72-2023

Public Comment No. 224-NFPA 72-2023 [Section No. 26.6.3.4]

Public Comment No. 67-NFPA 72-2023 [Section No. 26.6.3.4]

Public Comment No. 175-NFPA 72-2023 [Section No. 26.6.3.4]

## Second Revision No. 5143-NFPA 72-2023 [ Section No. 26.6.3.5 ]

**26.6.3.5*** Single Technology.

A single technology shall be permitted to be used to create the multiple paths ~~provided that~~ if the requirements of 26.6.3.4(1) through ~~26.6.3.4(4)~~ 26.6.3.4(3) are met.

## Submitter Information Verification

**Committee:** SIG-SSS
**Submittal Date:** Thu Jul 27 15:34:27 EDT 2023

## Committee Statement

**Committee Statement:** Updated cross reference.
**Response Message:** SR-5143-NFPA 72-2023

## Second Revision No. 5124-NFPA 72-2023 [ New Section after 26.6.3.11.2 ]

**26.6.3.11.3***

The integrity and signal reliability of listed communications equipment used for fire alarm signal transmission shall be compatible with the latency and jitter parameters applicable to the communications protocol.

**A.26.6.3.11.3**

Latency and jitter conditions are important network metrics to consider because communications equipment transmitting fire alarm signals over internet protocol is sensitive to such conditions, which can impact communications integrity and signal reliability. Latency is the measurement of time for a packet of data to transmit from Point A to Point B. Jitter is the measurement of the fluctuation of latency time when two devices are talking to each other.

**26.6.3.11.4**

Any communications failure due to latency or jitter conditions shall result in a trouble signal annunciated at the protected premises.

## Submitter Information Verification

**Committee:** SIG-SSS

**Submittal Date:** Wed Jul 26 17:41:32 EDT 2023

## Committee Statement

**Committee Statement:** During the first revision meeting of the SIG-SSS Technical Committee there was identified an immediate need to begin to address the technical advancements and variety of methods of transmitting and processing important fire alarm system signals to supervising stations while at the same time providing continued recognition of legacy methods still in use for transmitting fire alarm system signals to supervising stations. As a result of numerous Task Group meetings this second revision is one of many second revisions intended to address changes that reflect both existing and performance-based technologies considered reasonably reliable and acceptable for the important task of transmitting fire alarm signals to supervising stations and ultimately for notification and response by emergency public safety agencies. In the case of this second revision the following points are the specific basis for the change.

1. The revision addresses the concerns for latency and jitter in communications equipment.

2. Provides guidance to testing laboratories to develop appropriate equipment parameters.

**Response Message:** SR-5124-NFPA 72-2023

Public Comment No. 177-NFPA 72-2023 [Section No. 26.6.3.11]

Public Comment No. 59-NFPA 72-2023 [New Section after 26.6.3.11.2]

Public Comment No. 228-NFPA 72-2023 [New Section after 26.6.3.11.2]

Public Comment No. 58-NFPA 72-2023 [New Section after 26.6.3.11.2]

## Second Revision No. 5152-NFPA 72-2023 [ Section No. 26.6.3.12 ]

**26.6.3.12** Sharing Communications Equipment On-Premises.

**26.6.3.12.1***

~~If~~ Where the fire alarm transmitter is sharing on-premises communications equipment, the shared equipment shall be listed as communications ~~or~~ equipment, information technology equipment, or telecommunications equipment .

**A.26.6.3.12.1**

Most communications equipment is not specifically listed for fire alarm applications, but is listed in accordance with applicable product standard for general communications equipment and is acceptable. Two examples of commonly applied listing standards are UL 60950-1, *Information Technology Equipment — Safety — Part 1: General Requirements* , and UL 62368-1, *Audio/Video, Information and Communication Technology Equipment — Part 1: Safety Requirements* .

**26.6.3.12.2**

All shared on-premises communications equipment shall meet the secondary power requirements of 26.6.3.13 .

## Supplemental Information

| File Name | Description | Approved |
|---|---|---|
| Chapter_26_26_6_3_12_SR-5152.docx | Chapter_26_26_6_3_12_SR-5152 | |

## Submitter Information Verification

**Committee:** SIG-SSS

**Submittal Date:** Tue Aug 01 12:01:22 EDT 2023

## Committee Statement

**Committee Statement:** Secondary power is not being uniformly applied throughout the industry. Even in performance based design secondary power requirements should not be less than the minimum prescriptive requirements within the code.

**Response Message:** SR-5152-NFPA 72-2023

Public Comment No. 60-NFPA 72-2023 [Section No. 26.6.3.12]

Public Comment No. 230-NFPA 72-2023 [Section No. 26.6.3.12]

Public Comment No. 178-NFPA 72-2023 [Section No. A.26.6.3.12]

## Second Revision No. 5130-NFPA 72-2023 [ Section No. 26.6.3.13.1 ]

**26.6.3.13.1** Premises Equipment.

The secondary power capacity for all transmitters and shared equipment necessary for the transmission of alarm, supervisory, trouble, and other signals located at the protected premises shall be a minimum of 24 hours or as permitted by 10.6.7.3.1(2), 26.6.3.13.1.1, or 26.6.3.13.1.2.

~~**A.26.6.3.13.1**~~

~~Shared equipment owned by or under the control of the subscriber should provide 24 hours of secondary standby power.~~

**26.6.3.13.1.1**

Secondary power capacity for ~~shared~~ premises equipment shall be permitted to have a minimum capacity of 8 hours where acceptable to the ~~authority having jurisdiction~~ AHJ and where a risk analysis is performed to ensure acceptable availability is provided.

~~**A.26.6.3.13.1.1**~~

~~Shared equipment owned by or under the control of an approved managed facilities-based voice network provider should supply 8 hours of secondary power.~~

**26.6.3.13.1.2***

Secondary power capacity for shared and premises equipment used in additional communications paths shall not be required where the first communications path meets the performance requirements of 26.6.3.3.

**A.26.6.3.13.1.2**

The requirement in 26.6.3.13.1.2 does not exempt first communications path transmitters and first communications path ~~shared~~ premises equipment necessary for the transmission of alarm, supervisory, trouble, and other signals ~~located at the protected premises~~ from ~~the~~ secondary power capacity requirements ~~of~~ provided in 26.6.3.13. This section does not permit the communications paths to be considered multiple communication paths under 26.6.3.4.

**26.6.3.13.1.3**

Communications equipment used for transmission of fire alarm signals that receives primary power from the protected premises shall meet the secondary power requirements of 26.6.3.13 .

## Supplemental Information

| File Name | Description | Approved |
|---|---|---|
| Chapter_26_26_6_3_13_SR-5130.docx | Chapter_26_26_6_3_13_SR-5130 | |

## Submitter Information Verification

**Committee:** SIG-SSS

**Submittal Date:** Thu Jul 27 09:25:09 EDT 2023

## Committee Statement

**Committee Statement:** During the first revision meeting of the SIG-SSS Technical Committee there was identified an immediate need to begin to address the technical advancements and variety of methods of transmitting and processing important fire alarm system signals to supervising stations while at the same time providing continued recognition of legacy methods still in use for transmitting fire alarm system signals to supervising stations. As a result of numerous Task Group meetings this second revision is one of many second revisions intended to address changes that reflect both existing and performance-based technologies considered reasonably reliable and acceptable for the important task of transmitting fire alarm signals to supervising stations and ultimately for notification and response by emergency public safety agencies. In the case of this second revision the following points are the specific basis for the change.

1. Simplified the secondary power requirements.

2. Added language to ensure secondary power was provided for all premises powered equipment.

**Response Message:** SR-5130-NFPA 72-2023

Public Comment No. 180-NFPA 72-2023 [Section No. 26.6.3.13.1]

Public Comment No. 231-NFPA 72-2023 [Section No. 26.6.3.13.1]

Public Comment No. 61-NFPA 72-2023 [Section No. 26.6.3.13.1.1]

## Second Revision No. 5125-NFPA 72-2023 [ Sections 26.6.4.1.1, 26.6.4.1.2 ]

**26.6.4.1.1**

The requirements of 26.6.4.2 shall not apply when a DACT is used as a signaling interface from a fire alarm control unit to another listed communications means.

**26.6.4.1.2**

~~The listed~~ When a DACT is used as a signaling interface from a fire alarm control unit to any other communications means, the communications means shall meet the requirements of either 26.6.3 or 26.6.5.

## Supplemental Information

| File Name | Description | Approved |
|---|---|---|
| Chapter_26_26_6_4_1_1_SR-5125.docx | Chapter_26_26_6_4_1_1_SR-5125 | |

## Submitter Information Verification

**Committee:** SIG-SSS

**Submittal Date:** Wed Jul 26 18:19:56 EDT 2023

## Committee Statement

**Committee Statement:** During the first revision meeting of the SIG-SSS Technical Committee there was identified an immediate need to begin to address the technical advancements and variety of methods of transmitting and processing important fire alarm system signals to supervising stations while at the same time providing continued recognition of legacy methods still in use for transmitting fire alarm system signals to supervising stations. As a result of numerous Task Group meetings this second revision is one of many second revisions intended to address changes that reflect both existing and performance-based technologies considered reasonably reliable and acceptable for the important task of transmitting fire alarm signals to supervising stations and ultimately for notification and response by emergency public safety agencies. In the case of this second revision the following points are the specific basis for the change.

1. This revision refers the use either to one-way radio or performance based requirements when a DACT is used as a signaling interface device.

**Response Message:** SR-5125-NFPA 72-2023

Public Comment No. 181-NFPA 72-2023 [Sections 26.6.4.1.1, 26.6.4.1.2]

## Second Revision No. 5126-NFPA 72-2023 [ Section No. 26.6.4.2.1 ]

**26.6.4.2.1*** Managed Facilities-Based Voice Network (MFVN) .

A DACT shall be connected to a managed facilities-based voice network (MFVN) upstream of any private telephone system at the protected premises.

**26.6.4.2.1.1**

The connections to ~~a managed facilities-based voice network~~ an MFVN shall be under the control of the subscriber for whom service is being provided ~~by the supervising station alarm system~~ .

**26.6.4.2.1.2**

Special attention shall be required to ensure that this MFVN connection is made only to a loop start telephone circuit and not to a ground start telephone circuit.

Detail SR-5148

**26.6.4.2.1.3***

An MFVN provider (voice or digital) shall be authorized by the regulating authority as a common carrier.

**26.6.4.2.1.4**

Acknowledgments to the protected premises for alarm, supervisory, or trouble signals shall only be initiated by the supervising station.

**26.6.4.2.1.5**

Communication equipment used for transmission of fire alarm signals that receives primary power from the protected premises shall meet the requirements of 26.6.3.13 .

## Submitter Information Verification

**Committee:** SIG-SSS

**Submittal Date:** Wed Jul 26 18:28:42 EDT 2023

## Committee Statement

**Committee Statement:** During the first revision meeting of the SIG-SSS Technical Committee there was identified an immediate need to begin to address the technical advancements and variety of methods of transmitting and processing important fire alarm system signals to supervising stations while at the same time providing continued recognition of legacy methods still in use for transmitting fire alarm system signals to supervising stations. As a result of numerous Task Group meetings this second revision is one of many second revisions intended to address changes that reflect both existing and performance-based technologies considered reasonably reliable and acceptable for the important task of transmitting fire alarm signals to supervising stations and ultimately for notification and response by emergency public safety agencies. In the case of this second revision the following points are the specific basis for the change.

1.This revisions provides clarity by removing unnecessary text.

**Response Message:** SR-5126-NFPA 72-2023

Public Comment No. 235-NFPA 72-2023 [Section No. 26.6.4.2.1.1]

Public Comment No. 182-NFPA 72-2023 [Section No. 26.6.4.2.1.1]

## Second Revision No. 5138-NFPA 72-2023 [ Section No. 26.6.4.2.4.1 ]

**26.6.4.2.4.1**

A system employing a DACT shall employ a single legacy POTS telephone line (number) and one of the following transmission means:

(1) One-way private radio alarm system

~~Two-way RF multiplex system~~

(2) Transmission means complying with 26.6.3

(3) A second telephone line (number), where all of the following conditions are met:

(a) Access to one of the technologies in 26.6.4.2.4.1(1), 26.6.4.2.4.1(2), or 26.6.4.2.4.1(3) is not available at the protected premises.

(b) The ~~authority having jurisdiction~~ AHJ 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 26.6.4.2.4.2 or at alternating 6-hour intervals.

## Submitter Information Verification

**Committee:** SIG-SSS

**Submittal Date:** Thu Jul 27 14:50:32 EDT 2023

## Committee Statement

**Committee Statement:** During the first revision meeting of the SIG-SSS Technical Committee there was identified an immediate need to begin to address the technical advancements and variety of methods of transmitting and processing important fire alarm system signals to supervising stations while at the same time providing continued recognition of legacy methods still in use for transmitting fire alarm system signals to supervising stations. As a result of numerous Task Group meetings this second revision is one of many second revisions intended to address changes that reflect both existing and performance-based technologies considered reasonably reliable and acceptable for the important task of transmitting fire alarm signals to supervising stations and ultimately for notification and response by emergency public safety agencies. In the case of this second revision the following points are the specific basis for the change.

1. Two way radios were removed because they are no longer used.

2. The language was clarified that DACTS must connect to a legacy POTS telephone line.

**Response Message:** SR-5138-NFPA 72-2023

Public Comment No. 68-NFPA 72-2023 [Section No. 26.6.4.2.4.1]

Public Comment No. 185-NFPA 72-2023 [Section No. 26.6.4.2.4.1]

## Second Revision No. 5127-NFPA 72-2023 [ Section No. 26.6.5.1 ]

~~**26.6.5.1** Two-Way Radio Frequency (RF) Multiplex Systems.~~

~~**26.6.5.1.1** Maximum Operating Time.~~

~~The maximum end-to-end operating time parameters allowed for a two-way RF multiplex system shall be as follows:~~

~~For a time lapse from initiation, both of the following shall apply:~~

~~The maximum allowable time lapse from the initiation of a single alarm signal until it is recorded at the supervising station shall not exceed 90 seconds.~~

~~When any number of subsequent alarm signals occur at any rate, they shall be recorded at a rate no slower than one every additional 10 seconds.~~

~~For a time lapse from the occurrence, both of the following shall apply:~~

~~The maximum allowable time lapse from the occurrence of an adverse condition in any transmission channel until recording of the adverse condition is started shall not exceed 200 seconds for Type 4 and Type 5 systems.~~

~~The requirements of 26.6.5.1.4 shall apply.~~

~~In addition to the maximum operating time allowed for alarm signals, the requirements of one of the following shall be met:~~

~~A system unit that has more than 500 initiating device circuits shall be able to record not less than 50 simultaneous status changes within 90 seconds.~~

~~A system unit that has fewer than 500 initiating device circuits shall be able to record not less than 10 percent of the total number of simultaneous status changes within 90 seconds.~~

~~**26.6.5.1.2** Supervisory and Control Functions.~~

~~**26.6.5.1.2.1**~~

~~Facilities shall be provided at the supervising station for the following supervisory and control functions of the supervising or subsidiary station and the repeater station radio transmitting and receiving equipment:~~

~~RF transmitter in use (radiating)~~

~~Failure of ac power supplying the radio equipment~~

~~RF receiver malfunction~~

~~Indication of automatic switchover~~

~~Independent deactivation of either RF transmitter controlled from the supervising station~~

~~**26.6.5.1.2.2**~~

~~Where the radio equipment is remotely located from the system unit, supervisory and control functions of the supervising or subsidiary station and the repeater station radio transmitting and receiving equipment shall be accomplished via a supervised circuit.~~

~~**26.6.5.1.3** Transmission Channel.~~

**26.6.5.1.3.1**

The RF multiplex transmission channel shall terminate in an RF transmitter/receiver at the protected premises and in a system unit at the supervising or subsidiary station.

**26.6.5.1.3.2**

Operation of the transmission channel shall conform to the requirements of this Code whether channels are private facilities, such as microwave, or leased facilities furnished by a communications utility company.

**26.6.5.1.3.3**

If private signal transmission facilities are used, the equipment necessary to transmit signals shall also comply with requirements for duplicate equipment or replacement of critical components, as described in 26.6.6.3 .

**26.6.5.1.4*** Categories.

Two-way RF multiplex systems shall be divided into Type 4 or Type 5 classifications based on their ability to perform under adverse conditions.

**A.26.6.5.1.4**

The intent of the plurality of control sites is to safeguard against damage caused by lightning and to minimize the effect of interference on the receipt of signals. The control sites can be co-located.

**26.6.5.1.4.1**

A Type 4 system shall have two or more control sites configured as follows:

Each site shall have an RF receiver interconnected to the supervising or subsidiary station by a separate channel.

The RF transmitter/receiver located at the protected premises shall be within transmission range of at least two RF receiving sites.

The system shall contain two RF transmitters that are one of the following:

Located at one site with the capability of interrogating all of the RF transmitters/receivers on the premises

Dispersed with all of the RF transmitters/receivers on the premises having the capability to be interrogated by two different RF transmitters

Each RF transmitter shall operate as follows:

Maintain a status that allows immediate use at all times.

Provide facilities in the supervising or subsidiary station to operate any off-line RF transmitter at least once every 8 hours.

The Type 4 system shall operate as follows:

Failure of one of the RF receivers shall not interfere with the operation of the system from the other RF receiver.

Failure of any receiver shall be annunciated at the supervising station.

A physically separate channel shall be required between each RF transmitter or RF receiver site, or both, and the system unit.

**26.6.5.1.4.2**

A Type 5 system shall have a single control site configured as follows:

A minimum of one RF receiving site

A minimum of one RF transmitting site

**26.6.5.1.5** Loading Capacities.

**26.6.5.1.5.1**

The loading capacities of two-way RF multiplex systems shall be based on the overall reliability of the signal receiving, processing, display, and recording equipment at the supervising or subsidiary station and the capability to transmit signals during adverse conditions of the transmission channels.

**26.6.5.1.5.2**

Allowable loading capacities shall comply with Table 26.6.5.1.5.2 .

Table 26.6.5.1.5.2 Loading Capacities for Two-Way RF Multiplex Systems

| **Trunks** | **System Type** | |
|---|---|---|
| | **Type 4** | **Type 5** |
| Maximum number of alarm service initiating device circuits per primary trunk facility | 5,120 | 1,280 |
| Maximum number of leg facilities for alarm service per primary trunk facility | 512 | 128 |
| Maximum number of leg facilities for all types of alarm service per secondary trunk facility* | 128 | 128 |
| Maximum number of all types of initiating device circuits per primary trunk facility in any combination | 10,240 | 2,560 |
| Maximum number of leg facilities for types of alarm service per primary trunk facility in any combination* | 1,024 | 256 |
| **System Units at the Supervising Station** | - | - |
| Maximum number of all types of initiating device circuits per system unit* | 10,240 | 10,240 |
| Maximum number of protected buildings and premises per system unit | 512 | 512 |
| Maximum number of alarm service initiating device circuits per system | 5,120 | 5,120 |
| **Systems Emitting from Subsidiary Station** † | — | — |

*Includes every initiating device circuit (e.g., waterflow, alarm, supervisory, guard, burglary, hold-up).

† Same as system units at the supervising station.

**26.6.5.1.5.3**

The capacity of a system unit shall be permitted to be unlimited if the signal-receiving, processing, display, and recording equipment are duplicated at the supervising station and a switchover is able to be accomplished in not more than 30 seconds, with no loss of signals during this period.

**26.6.5.1.6** Adverse Conditions.

**26.6.5.1.6.1**

The occurrence of an adverse condition on the transmission channel between a protected premises and the supervising station that prevents the transmission of any status change signal shall be automatically indicated and recorded at the supervising station.

~~**26.6.5.1.6.2**~~

~~The indication and recording of the adverse condition shall identify the affected portions of the system so that the supervising station operator will be able to determine the location of the adverse condition by trunk or leg facility, or both.~~

~~**26.6.5.1.6.3**~~

~~For two-way RF multiplex systems that are part of a central station alarm system, restoration of service to the affected portions of the system shall be automatically recorded.~~

~~**26.6.5.1.6.4**~~

~~When service is restored to a two-way RF multiplex system, the first status change of any initiating device circuit, any initiating device directly connected to a signaling line circuit, or any combination thereof that occurred at any of the affected premises during the service interruption also shall be recorded.~~

## Submitter Information Verification

**Committee:** SIG-SSS

**Submittal Date:** Wed Jul 26 18:33:07 EDT 2023

## Committee Statement

**Committee Statement:** This section has been eliminated since the technology is no longer listed for fire alarm service.

**Response Message:** SR-5127-NFPA 72-2023

Public Comment No. 66-NFPA 72-2023 [Section No. 26.6.5.1]

## Second Revision No. 5150-NFPA 72-2023 [ Section No. 26.7 ]

~~**26.7** Subsidiary Stations or Intermediary Service Provider.~~

~~**26.7.1** General.~~

~~**26.7.1.1**~~

~~The requirements of this section shall apply to gateway communications systems between the protected premises and the public safety answering points (PSAP).~~

~~**26.7.1.2**~~

~~Gateway communication systems shall consist of fire alarm control units, transmitters, and other signal initiating devices or technologies that communicate on wireless network(s) from the protected premises through the gateway to a PSAP.~~

~~**26.7.1.3***~~

~~The systems covered under Section 26.7 shall be for the transmission of signals between the protected premises and a PSAP.~~

~~**A.26.7.1.3**~~

~~A gateway communications system is intended to communicate alarm, supervisory, and trouble signals from a protected premises to a PSAP.~~

~~**26.7.1.4**~~

~~This section shall establish minimum required levels of performance, reliability, and quality for gateways and signal transmission from the gateway to a PSAP.~~

~~**26.7.2** Gateway Communication Systems.~~

~~**26.7.2.1**~~

~~Gateway communications systems shall be designed, installed, operated, and maintained in accordance with 26.7.2 to provide reliable transmission and receipt of alarms in a manner acceptable to the authority having jurisdiction.~~

~~**26.7.2.2**~~

~~A gateway communications system shall be permitted to be used for the transmission of other signals or calls of a public emergency nature, provided that such transmission does not interfere with the transmission and receipt of fire alarms.~~

~~**26.7.2.3**~~

~~All devices shall be designed to function satisfactorily under the climatic and environmental conditions to which they could be exposed.~~

~~**26.7.2.3.1**~~

~~All devices shall be identified as suitable for the location and conditions for which they are installed.~~

~~**26.7.2.4**~~

~~All circuits, paths, and equipment necessary for the receipt of signals from a protected premises shall be monitored for integrity.~~

~~**26.7.2.5**~~

All systems and signal transmissions shall be under the control of a designated supervising station.

**26.7.2.5.1**

Designation shall be through a contract between the owner and the supervising station.

**26.7.2.5.2**

The contract between the owner and the supervising station shall be the only one in force.

**26.7.2.6**

All gateway equipment shall be listed for its purpose.

**26.7.2.7**

All gateway equipment shall be installed in locations accessible to the authority having jurisdiction for the purpose of inspection.

**26.7.2.8**

Gateway communications systems shall, in their entirety, be subject to a complete operational acceptance test upon completion of system installation.

**26.7.2.8.1**

The operational test(s) shall comply with the following:

- Be made in accordance with the requirements of the authority having jurisdiction
- In no case be less than those stipulated in Chapter 14

**26.7.2.8.2**

Operational acceptance tests shall be performed on any alarm-reporting devices, as covered in Section 26.7 , that are installed or modified subsequent to the test required by 26.7.2.8 .

**26.7.2.9**

Personnel shall be qualified in accordance with the requirements of 10.5.7 .

**26.7.3** Communications Methods.

**26.7.3.1** Application.

**26.7.3.1.1**

A gateway communications system shall include wireless network(s) for command and control communications between the protected premises, alarm processing equipment, supervising station, and PSAP.

**26.7.3.1.2**

A gateway communications system shall be permitted to be used with emergency communications systems covered under Chapter 24 .

**26.7.3.2** Wireless Network(s).

**26.7.3.2.1**

The terms *wireless network* and *cellular transmission* shall be considered the same and interchangeable throughout this section.

**26.7.3.2.2**

All wireless networks shall meet the requirements of 26.7.3.2.3 through 26.7.3.2.6 .

**26.7.3.2.3**

In addition to the requirements of this Code, all wireless equipment shall be designed and operated in compliance with all applicable rules and regulations of the Federal Communications Commission (FCC) or, where required, the National Telecommunications and Information Administration (NTIA).

**26.7.3.2.4**

Unlicensed wireless networks shall not be permitted.

**26.7.3.2.5**

Fire alarm signals, other emergency alarm signals, and monitoring for integrity signals shall be permitted on the same wireless network, dedicated for that purpose.

**26.7.3.2.6**

Two independent means shall be provided to retransmit an alarm signal from the gateway to the designated PSAP.

**26.7.4** Alarm Processing Equipment.

The alarm processing equipment at the gateway required to receive and control signals from the protected premises shall be installed and maintained as defined in NFPA 1225 .

**26.7.5** Visual Recording Devices.

**26.7.5.1**

Alarms shall be automatically received and recorded at the gateway.

**26.7.5.2**

A device for producing a permanent graphic recording of all alarm, supervisory, trouble, and test signals received or retransmitted, or both, shall be provided at each gateway for each system.

**26.7.5.3**

Reserve recording devices shall be provided in accordance with 26.7.5.3.1 and 26.7.5.3.2 .

**26.7.5.3.1**

Where each gateway is served by a dedicated recording device, the number of reserve recording devices required on-site shall be equal to at least 5 percent of the systems that are in service and in no case less than one device.

**26.7.5.3.2**

Where two or more gateways are served by a common recording device, a reserve recording device shall be provided on-site for each gateway connected to a common recorder.

**26.7.5.4**

Permanent visual records shall comply with 26.7.5.4.1 and 26.7.5.4.2 .

**26.7.5.4.1**

A permanent visual record and an audible signal shall be required to indicate the receipt of an alarm.

**26.7.5.4.2**

The permanent record shall indicate the exact location from which the alarm is being transmitted.

**26.7.5.5**

Facilities shall be provided with a device that automatically records the date and time of receipt of each alarm.

**26.7.6** System Integrity.

**26.7.6.1**

Circuits upon which transmission and receipt of alarms depend shall be constantly monitored for integrity to provide prompt warning of conditions adversely affecting reliability.

**26.7.6.2**

The power supplied to all required circuits and devices of the system shall be constantly monitored for integrity.

**26.7.7** Trouble Signals.

**26.7.7.1**

Trouble signals shall be indicated where there is a trained and competent person on duty at all times within a gateway.

**26.7.7.2**

Trouble signals shall be distinct from alarm signals and be indicated by a visual and audible signal.

**26.7.7.3**

A switch for silencing the audible trouble signal shall be permitted, provided that the visual signal remains operating until the silencing switch is restored to its normal position.

**26.7.7.4**

The audible signal shall be responsive to faults on any other circuits that occur prior to restoration of the silencing switch to its normal position.

**26.7.8** Power Supply.

**26.7.8.1**

The requirements of 26.7.8 shall be met for primary and secondary power for the gateway.

**26.7.8.2**

Visual and audible means to indicate a 15 percent or greater reduction of normal power supply (rated voltage) shall be provided.

**26.7.8.3**

Where the electrical service/capacity of the equipment required under Section 4.7 of NFPA 1225 satisfies the needs of equipment in this section, such equipment shall not be required to be duplicated.

**26.7.9** Engine-Driven Generators.

The installation of engine-driven generator sets shall be in accordance with NFPA 37 , NFPA 110 , and NFPA 1225 .

**26.7.10** Equipment Fire Protection.

Where applicable, electronic computer/data processing equipment shall be protected in accordance with NFPA 75 .

**26.7.11** Gateway.

**26.7.11.1**

All equipment shall be listed for its intended use and shall be installed in accordance with *NFPA 70* .

**26.7.11.2** Alarm Processing Equipment.

**26.7.11.2.1**

The alarm processing equipment shall be located where it can be monitored for alarm and trouble conditions.

**26.7.11.2.2**

The alarm processing equipment shall be accessible in case of a pathway or communications failure with the communications center.

**26.7.11.3**

Wireless alarm repeating systems used to repeat signals between a protected premises and the gateway processing equipment location shall meet the requirements of 26.7.11.3.1 through 26.7.11.3.4 .

~~**26.7.11.3.1**~~

~~There shall be a minimum of two complete and independent alarm repeater systems, including batteries and power supplies.~~

~~**26.7.11.3.2**~~

~~If the gateway is configured with one alarm repeater in standby mode, the system shall be capable of both of the following:~~

~~Detecting a communications failure~~

~~Automatically switching to the backup system without interruption or loss of any alarm or trouble transmission~~

~~**26.7.11.3.3**~~

~~Gateways shall not be used for any purpose other than alarm communications between the protected premises and the PSAP.~~

~~**26.7.11.3.4**~~

~~Where it is not possible to use the gateway alarm reporting infrastructure to provide communications between the protected premises and a PSAP, alarm processing equipment at the contracted supervising station shall be used in accordance with Section~~ 26.3 ~~, Section~~ 26.4 ~~, or Section~~ 26.5 ~~.~~

~~**26.7.11.4**~~

~~Pathways between the protected premises and the gateway alarm processing equipment shall be monitored for integrity, be dedicated, and not be used for any other purpose.~~

~~**26.7.11.5**~~

~~When communications protected premises and the gateway alarm processing equipment fails, the requirements of~~ 26.7.11.5.1 ~~through~~ 26.7.11.5.3 ~~shall apply.~~

~~**26.7.11.5.1**~~

~~A pathway or communications trouble condition shall be detected and annunciated at the protected premises, the originating supervising station, and the gateway alarm processing equipment within 200 seconds and meet the requirements of~~ 26.7.7 ~~.~~

~~**26.7.11.5.2**~~

~~Visual and audible trouble alarm indications pertaining to a pathway or communications failure between the protected premises and the gateway alarm processing equipment shall be distinct from all other trouble alarms.~~

~~**26.7.11.5.3**~~

~~The gateway alarm processing equipment shall be manned by trained personnel until communications can be re-established.~~

## Submitter Information Verification

**Committee:** SIG-SSS

**Submittal Date:** Tue Aug 01 10:32:01 EDT 2023

## Committee Statement

**Committee Statement:** Currently, intermediary service providers are being used to communicate fire protection signals from the protected premises to the supervising stations. Requirements were needed to ensure that when these signals pass through the intermediary service providers servers, they are processed in a reliable and supervised manner, and do not bypass the supervising station. Revised requirements were moved to 26.2.11.

**Response** SR-5150-NFPA 72-2023

**Message:**

## Second Revision No. 5115-NFPA 72-2023 [ Section No. A.3.3.104 ]

**A.3.3.104** Emergency Response Agency (ERA).

~~Organizations providing law enforcement, emergency medical, fire, rescue, communications, and related support services~~ An ERA includes any public, governmental, private, industrial, or military organization that engages in the operations specified in the definition . [**1225,** 2022]

## Submitter Information Verification

**Committee:** SIG-SSS
**Submittal Date:** Wed Jul 26 13:57:00 EDT 2023

## Committee Statement

**Committee Statement:** This revision updates extracted text in accordance with the Extract Policy.
**Response Message:** SR-5115-NFPA 72-2023

## Second Revision No. 5139-NFPA 72-2023 [ Section No. A.26.5.3 ]

**A.26.5.3**

~~As~~ At a minimum, the room(s) ~~or rooms~~ containing the remote supervising station equipment should have a 1-hour fire rating, and the entire structure should be protected by an alarm system complying with Chapter 23.

As a useful guide for determining the nature of the design and integrity necessary to achieve proper protection, the remote supervising station building or that portion of a building occupied by a remote supervising station should compare the construction, fire protection, restricted access, emergency lighting, and power facilities to the requirements stated in the latest edition of UL 827, *Central-Station Alarm Services*.

If the remote supervising station is located within an emergency response agency (ERA), the ERA should consider meeting the requirements of ~~Chapter 4 of~~ NFPA 1225.

## Submitter Information Verification

**Committee:** SIG-SSS

**Submittal Date:** Thu Jul 27 15:06:13 EDT 2023

## Committee Statement

**Committee Statement:** Removed chapter reference in favor of pointing the user to NFPA 1225.

**Response Message:** SR-5139-NFPA 72-2023

Public Comment No. 166-NFPA 72-2023 [Section No. A.26.5.3]

## Second Revision No. 5128-NFPA 72-2023 [ Section No. A.26.6.1 ]

**A.26.6.1**

Refer to Table A.26.6.1 for communications methods.

Table A.26.6.1 Communications Methods for Supervising Stations

| Criteria | Performance-Based Technologies (see 26.6.3) | Digital Alarm Communicator Systems (see 26.6.4) | ~~Two-Way Radio Frequency (RF) Multiplex Systems 26.6.5.1~~ | One-Way Private Radio Alarm Systems (see ~~26.6.5.2~~ 26.6.5.1) |
|---|---|---|---|---|
| ~~Federal Communications Commission (~~FCC~~)~~ approval when applicable | Yes | Yes | ~~Yes~~ | Yes |
| Conform to *NFPA 70* | Yes | Yes | ~~Yes~~ | Yes |
| Monitoring for integrity of the transmission and communications channel | Monitor for integrity | Both the premises unit and the system unit monitor for integrity in a manner approved for the means of transmission employed. A single signal received on each incoming DACR line once every 6 hours. | ~~Systems are periodically polled for end-to-end communications integrity.~~ | Test signal from every transmitter once every 24 hours |
| Annunciate, at the supervising station, the degradation and restoration of the transmission or communications channel | Within 60 minutes for a single communication path and within 6 hours for multiple communication paths | Within 4 minutes using alternate phone line to report the trouble | ~~Not exceed 90 seconds from the time of the actual failure~~ | Only monitor the quality of signal received and indicate if the signal falls below minimum signal quality specified in this Code |
| Redundant communication path where a portion of the transmission or communications channel cannot be monitored for integrity | | Employ a combination of two separate transmission channels alternately tested at intervals not exceeding 6 hours | ~~Redundant path not required — supervising station always indicates a communications failure~~ | Minimum of two independent RF paths must be simultaneously employed |
| Interval testing of the backup path(s) | | When two phone lines are used, test alternately every 6 hours. Testing for other back-up technologies, see 26.6.4.2.4.2. | ~~Backup path not required~~ | No requirement, because the quality of the signal is continuously monitored |
| Annunciation of communication failure or ability to communicate at the protected premises | Systems where the transmitter at the local premises unit detects a communication | Indication of failure at premises due to line failure or failure to communicate after | ~~Not required — always annunciated at the supervising station that~~ | Monitor the interconnection of the premises unit elements of transmitting equipment, and |

| Criteria | Performance-Based Technologies (see 26.6.3) | Digital Alarm Communicator Systems (see 26.6.4) | ~~Radio~~ Multiplex Systems 26.6.5.1 | One-Way Private Radio Alarm Systems (see 26.6.5.2 26.6.5.1) |
|---|---|---|---|---|
| | ~~failure, the premises can will annunciate the failure within 200 seconds of the failure~~ | ~~from 5 to 10 dialing attempts~~ | ~~initiates corrective action~~ | ~~indicate a failure at the premises or transmit a trouble signal to the supervising station~~ |
| Time to restore signal-receiving, processing, display, and recording equipment | Where duplicate equipment not provided, spare hardware required so a repair can be effected within 30 minutes. | Spare ~~digital alarm communicator receivers~~ DACRs required for switchover to backup receiver in 30 seconds. One backup system unit for every five system units. | ~~Where duplicate equipment not provided, spare hardware required so a repair can be effected within 30 minutes~~ | Where duplicate equipment not provided, spare hardware required so a repair can be effected within 30 minutes |
| Loading capacities for system units and transmission and communications channels | 512 independent alarm systems on a system unit with no backup. Unlimited if you can switch to a backup in 30 seconds. | See Table 26.6.4.3.2.4 for the maximum number of transmitters on a hunt group in a system unit | ~~512 buildings and premises on a system unit with no backup. Unlimited if you can switch to a backup in 30 seconds.~~ | 512 buildings and premises on a system unit with no backup. Unlimited if you can switch to a backup in 30 seconds. |
| End-to-end communication time for an alarm | 90 seconds from initiation of alarm until displayed to the operator and recorded on a medium from which the information can be retrieved | Off-hook to on-hook not to exceed 90 seconds per attempt. 10 attempts maximum. 900 seconds maximum for all attempts. | ~~90 seconds from initiation until it is recorded~~ | 90% probability to receive an alarm in 90 seconds, 99% probability in 180 seconds, 99.999% probability in 450 seconds |
| Record and display rate of subsequent alarms at supervising station | Not slower than one every 10 additional seconds | Not addressed | ~~When any number of subsequent alarms come in, record at a rate not slower than one every additional 10 seconds~~ | When any number of subsequent alarms come in, record at a rate not slower than one every additional 10 seconds |
| Signal error detection and correction | Signal repetition, parity check, or some equivalent means of error detection and correction must be used. | Signal repetition, digital parity check, or some equivalent means of signal verification must be used. | ~~Not addressed~~ | Not addressed |
| Path sequence priority | No need for prioritization of paths. The requirement is that both paths are equivalent. | The first transmission attempt uses the primary channel. | ~~Not addressed~~ | Not addressed |
| Carrier diversity | | Where long distance service (including WATS) is used, the | ~~Not addressed~~ | Not addressed |

| Criteria | Performance-Based Technologies (see 26.6.3) | Digital Alarm Communicator Systems (see 26.6.4) | ~~Two-Way Radio Frequency (RF) Multiplex Systems 26.6.5.1~~ | One-Way Private Radio Alarm Systems (see ~~26.6.5.2~~ 26.6.5.1) |
|---|---|---|---|---|
| | | second telephone number must be provided by a different long distance service provider where there are multiple providers. | | |
| Throughput probability | | Demonstrate 90% probability of a system unit immediately answering a call or follow the loading in Table 26.6.4.3.2.4. One-way radio backup demonstrates 90% probability of transmission. | ~~Not addressed~~ | 90% probability to receive an alarm in 90 seconds, 99% probability in 180 seconds, 99.999% in probability 450 seconds |
| Unique premises identifier | If a transmitter shares a transmission or communication channel with other transmitters, it must have a unique transmitter identifier. | Yes | ~~Yes~~ | Yes |
| Unique flaws | From time to time, unique flaws might be present in a communication system. Requirements must be written for unique flaws. | If call forwarding is used to communicate to the supervising station, verify the integrity of this feature every 4 hours. | ~~None addressed~~ | None addressed |
| Signal priority | If the communication method is shared with any other communication method, prioritizing alarm signals should be considered. | Chapter 10 on fundamentals requires that alarm signals take priority over supervisory signals unless there is sufficient repetition of the alarm signal to prevent the loss of an alarm signal. | ~~Chapter 10 on fundamentals requires that alarm signals take priority over supervisory signals unless there is sufficient repetition of the alarm signal to prevent the loss of an alarm signal.~~ | Chapter 10 on fundamentals requires that alarm signals take priority over supervisory signals unless there is sufficient repetition of the alarm signal to prevent the loss of an alarm signal. |

| Criteria | Performance-Based Technologies (see 26.6.3) | Digital Alarm Communicator Systems (see 26.6.4) | ~~Two-Way Radio Frequency (RF) Multiplex Systems 26.6.5.1~~ | One-Way Private Radio Alarm Systems (see ~~26.6.5.2~~ 26.6.5.1) |
|---|---|---|---|---|
| Sharing communications equipment on premises | If the transmitter is sharing on-premises communications equipment, the shared equipment must be listed for the purpose (otherwise the transmitter must be installed ahead of the unlisted equipment). | Disconnect outgoing or incoming telephone call and prevent its use for outgoing telephone calls until signal transmission has been completed. | ~~Not addressed~~ | Not addressed |

## Supplemental Information

| File Name | Description | Approved |
|---|---|---|
| Annex_A_Table_A_26_6_1_SR-5128.docx | Annex_A_Table_A_26_6_1_SR-5128 | |

## Submitter Information Verification

**Committee:** SIG-SSS
**Submittal Date:** Wed Jul 26 18:37:24 EDT 2023

## Committee Statement

**Committee Statement:** Two way radio technology has been eliminated from the table since the technology is no longer listed for fire alarm service.

**Response Message:** SR-5128-NFPA 72-2023

Public Comment No. 132-NFPA 72-2023 [Section No. A.26.6.1]

## Second Revision No. 5141-NFPA 72-2023 [ Section No. A.26.6.3 ]

**A.26.6.3**

Certain legacy technologies (e.g., active multiplex, McCulloh, directly connected non-coded and private microwave) have been removed from the text of the document. Existing systems ~~utilizing~~ using these technologies are acceptable, because all these technologies also comply with the general ~~provisions~~ requirements of 26.6.3.

The object of 26.6.3 is not to give details of specific technologies but rather give basic operating parameters of the transmission supervision rates of technologies. The following list represents examples of current technologies that can be configured to meet the requirements and the intent of 26.6.3:

(1) Transmitters using Internet protocol ( IP) ~~(Internet Protocol)~~

(2) IP transmission over the public open Internet or over private IP facilities maintained by an organization for its own use

(3) Transmitters using various (non-dialup) digital cellular ~~technology~~ technologies

*Wired IP Transmission.* There are two types of wired IP transmission devices. One type connects the IP network directly to the ~~fire alarm control unit~~ FACU (integrated IP or native IP). The second uses an intermediary module that can include the following:

(1) IP dialer capture module

(2) IP data capture module (~~such as~~ e.g., RS-232, keypad bus, RS-485)

(3) Relay contact monitoring module

Devices referred to as “IP dialer capture modules” (an IP communicator used with a DACT) are transmission devices that connect to the DACT output of the ~~fire alarm control unit~~ FACU and convert the output data stream to IP ~~(Internet protocol)~~ . As such, they are considered to use IP technology in their connection to the IP network. Therefore, they should be treated in this Code under the performance-based technologies requirements of 26.6.3~~, performance-based technologies,~~ and not under the digital communicator systems requirements of 26.6.4~~, digital alarm communicator systems~~ .

It should be noted that certain FCC-licensed carriers might provide interface hardware that is similar in function but not considered part of the alarm system equipment including DACT functions. Such carrier-provided interface equipment is considered part of the telecommunications network equipment and can be considered a functional gateway to the carrier network. It is not considered customer premises equipment or alarm signaling equipment. Such equipment is always provided by the carrier and wired accordingly on the network side of the FCC server name indication (SNI) or demarcation point (demarc). Such equipment will always carry the appropriate performance-based listing meeting the appropriate standard.

*Digital Cellular.* To accommodate an increase in ~~the~~ demand for mobile wireless communications as well as introducing new services over that same network, wireless voice communications no longer ~~utilizes~~ use dedicated connections to pass voice band frequencies. In place of the voice band, the voice conversation is converted into a stream of bits and packaged within data packets that conform to messaging protocols. The packets are addressed to a destination point, delivered into the network, received by the destination point, and converted back into intelligible voice-grade messages. The message exchange through this wireless data network is done through well-known defined protocols such as “~~Global System for Mobile~~ global system for mobile ” communications (GSM) for voice communications as well as ~~Code Division Multiple Access~~ code division multiple access (CDMA) for both voice and data and ~~General Packet Radio Service~~ general packet radio service (GPRS) for mobile data services. These protocols have been developed to operate in an optimal way for the intended application. For example, GSM ~~is used to~~ can efficiently establish voice-grade connections that deliver an appropriate level of intelligible voice quality~~,~~ but might not be good enough to pass tones that represent data. Data transmission is better served by GPRS and CDMA where a connection into the wireless network is always available without having to “dial,” and large amounts of data can be efficiently transmitted. However, the data passed using GPRS or CDMA are not ~~that of~~ coded tones such as dual tone multi-frequency [ DTMF (Contact ID)~~,~~ ] but are computer-type messages similar to IP.

When using digital cellular, a DACT might ~~or might not~~ be used.

For example, the digital cellular device might be used to back up the DACT or, if properly supervised, be used as a stand-alone device. If used, the DACT is connected to a digital cellular radio device that connects to the cellular network by means of an antenna. The digital cellular radio device is constantly connecting to the wireless network and is always ready to attempt to transmit to a destination address without having to “dial” a number. The radio device recognizes that the alarm panel is attempting to place a call by the DACT’s “off-hook” signaling. The radio device accepts the DACT tone signaling, converts it into a packeted data stream, and sends the packets into the wireless network for delivery to a ~~pre-assigned~~ preassigned destination address.

It should be noted that FCC-licensed carriers might provide similar services. These services are often optimized to consider both IP and cellular connectivity as needed. The telecommunication network equipment provided by such carriers will often present a single gateway to multiple communication technologies or pathways. In these cases, a DACT device will continue to function as legacy equipment capable of transmitting traditional tones, including frequency shift keying (FSK) or DTMF media. The carrier network can continue to carry both tone- and pulse-type signals if configured by the carrier. These carrier circuits are intended to permit legacy alarm DACT communication protocols to continue to function and communicate over the carrier network using different carrier-determined mediums, including combinations of IP, WAN, and cellular connectivity (as determined by the carrier).

## Submitter Information Verification

**Committee:** SIG-SSS

**Submittal Date:** Thu Jul 27 15:18:07 EDT 2023

## Committee Statement

**Committee Statement:** The additional annex language provides more background and descriptive information on how telecommunications networks are regulated.

**Response Message:** SR-5141-NFPA 72-2023

Public Comment No. 220-NFPA 72-2023 [Section No. A.26.6.3]

Public Comment No. 221-NFPA 72-2023 [Section No. A.26.6.3]

## Second Revision No. 5140-NFPA 72-2023 [ Section No. A.26.6.3.5 ]

**A.26.6.3.5**

When considering a fire alarm system ~~utilizing~~ using a single communication path to the supervising station, ~~consideration should be given to~~ the risk exposure that results from the loss of that path for any period of time and for any reason should be considered . Some of these outages can be regular and predicable and others transitory.

One example of a single technology used to produce two paths is the use of a digital cellular premises unit communicating with two or more cell towers. In this case, the supervising station and the protected premises must be made aware if communications ~~degrades~~ degrade to below two towers. Another example is the use of two different cellular carriers to produce the two paths. Similarly, in this case, the supervising station and the protected premises must be made aware if communications ~~degrades~~ degrade to one carrier.

## Submitter Information Verification

**Committee:** SIG-SSS
**Submittal Date:** Thu Jul 27 15:10:52 EDT 2023

## Committee Statement

**Committee Statement:** 'Premises' was missing from the text and added for clarification.
**Response Message:** SR-5140-NFPA 72-2023

Public Comment No. 176-NFPA 72-2023 [Section No. A.26.6.3.5]