NOTI•FIRE•NET™

Release 5.0

NOTIFIER®

by Honeywell

Network Systems

General

NOTI•FIRE•NET™ is the interface which allows NOTIFIER Intelligent Fire Alarm Control Panels to form a network. Each local control panel (network node) maintains its own area of protection, while monitoring and controlling other areas (other network nodes).
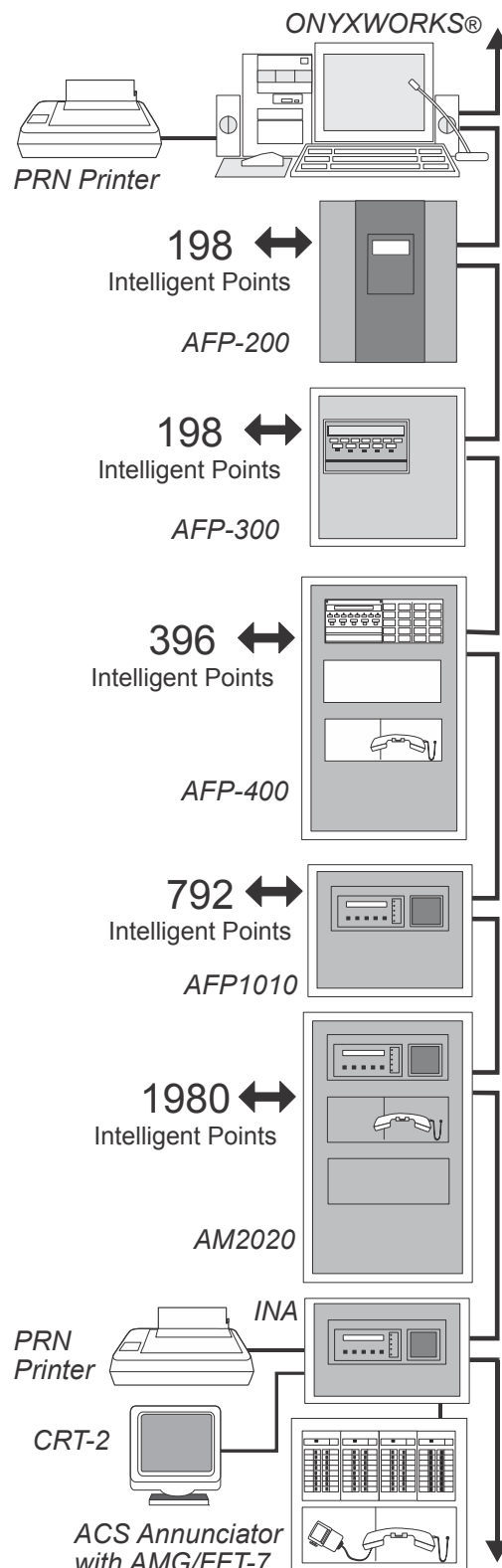
Local information is displayed at each network node. In areas such as a security office, where the entire network must be monitored, network annunciators are available.
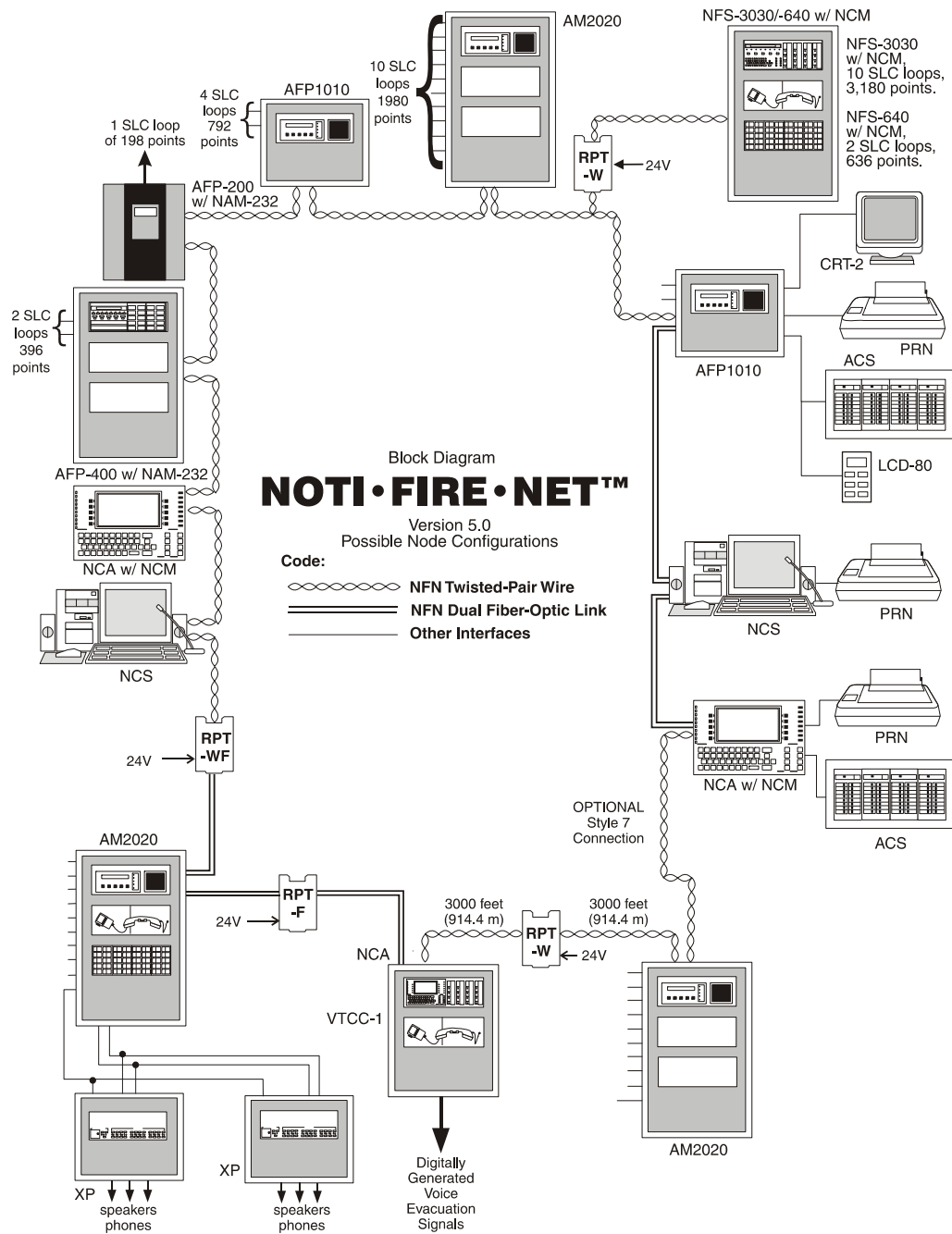
NOTI•FIRE•NET™ (NFN) is a token-pass style network based on the proven ARCNET® local area network technology, with four million nodes installed worldwide. This computer LAN architecture makes NFN extremely powerful, yet simple to configure and install.

Features

- Fiber optic (multi-mode), wire, or combination wire/fiber communications path.
- NFPA Style 4 or Style 7 network operation.
- Based on proven ARCNET® technology.
- True peer-to-peer communications. Each node stores its own program and communicates equally with all other nodes.
- Token-passing non-collision protocol.
- No "master" polling computer or other central weak link.
- Inherently regenerative system. Each node acts as a repeater to reshape and regenerate data signals. Failure of any node does not affect any other node/communications among surviving nodes.
- High-speed data communications (312,500 BPS) operates several times as fast as competitive networks.
- Simple plug-in module, the SIB-NET, connects AM2020/AFP1010. The NAM-232 connects AFP-200, AFP-300/400 panels anywhere on the network. The NCM connects the NFS-3030, NFS-640, NCA, BACnet Gateway, and NWS.
- Multiple Network Control Stations (ONYXWORKS®) may be placed anywhere on the network. Additional ONYX-WORKS® may be used to provide inherent "hot" backup.
- Multiple Network Control Annunciators (NCA) may be placed anywhere on the network. Version 5.0 does not support the INA.
- ONYXWORKS® and JNCA display all network activity. Unlike competitive systems, the point display capacity is *NOT* hold to less than the maximum network capacity.
- Single small-gauge twisted-pair wire (no shield necessary) for data communications path.
- Electrical isolation between nodes.
- Network clock synchronization (*see page 3*).
- History buffers on NCA, ONYXWORKS® NCS, NFS-3030, NFS-640, AFP-1010, AM2020, AFP-200, AFP-300, and AFP-400 Intelligent Fire Control Panels.
- Powerful Cooperative-Control-by-Event allows point(s) on one node to activate point(s) on other nodes. Any input can turn on any output, network-wide.

NOTE: *For High-Speed NOTI•FIRE•NET, see DN-60454.*

ONYXWORKS®

PRN Printer

198 ⬌ Intelligent Points
AFP-200

198 ⬌ Intelligent Points
AFP-300

396 ⬌ Intelligent Points
AFP-400

792 ⬌ Intelligent Points
AFP1010

1980 ⬌ Intelligent Points
AM2020

INA

PRN Printer

CRT-2

ACS Annunciator with AMG/FFT-7

Block Diagram

NOTI·FIRE·NET™

Version 5.0
Possible Node Configurations

Code:

⬡⬡⬡⬡⬡	**NFN Twisted-Pair Wire**
══════	**NFN Dual Fiber-Optic Link**
──────	**Other Interfaces**

AM2020

NFS-3030/-640 w/ NCM

NFS-3030 w/ NCM, 10 SLC loops, 3,180 points.

NFS-640 w/ NCM, 2 SLC loops, 636 points.

10 SLC loops 1980 points

4 SLC loops 792 points

AFP1010

1 SLC loop of 198 points

AFP-200 w/ NAM-232

RPT-W   24V

CRT-2

AFP1010

ACS   PRN

2 SLC loops 396 points

AFP-400 w/ NAM-232

LCD-80

NCA w/ NCM

NCS   PRN

NCS

NCA w/ NCM   PRN

RPT-WF

24V

OPTIONAL Style 7 Connection

ACS

AM2020

RPT-F   24V

NCA

VTCC-1

3000 feet (914.4 m)

3000 feet (914.4 m)

RPT-W   24V

AM2020

XP

XP

XP

speakers phones

speakers phones

Digitally Generated Voice Evacuation Signals

ONYXWORKS® Workstation

ONYXWORKS® Is a UL- Listed graphical workstation which operates as the central command center for the NOTI-FIRE-NET.

NCA Network Control Annunciator

The NCA provides full annunciation of all network signals and may optionally allow system control functions.

- 640-character, backlit LCD display shows all network alarms and troubles.
- LEDs for POWER, FIRE ALARM, PRE-ALARM, SECURITY, SUPERVISORY, SYSTEM TROUBLE, OTHER EVENT, SIGNAL SILENCED, POINT DISABLE, and CPU FAILURE.
- Fixed Function Keys/Switches for FIRE ALARM SCROLL/ DISPLAY, SECURITY SCROLL/DISPLAY, SUPERVISORY SCROLL/DISPLAY, TROUBLE SCROLL/DISPLAY, OTHER EVENT SCROLL/DISPLAY, SIGNAL SILENCE, DRILL, AND SYSTEM RESET.
- Special Function Keys for DISABLE/ENABLE, PRINT SCREEN, LAMP TEST, NEXT SELECTION/PREVIOUS SELECTION, and RECALL LAST ENTRY.
- Alphanumeric QWERTY keypad with tactile and audible feedback.
- Nonvolatile real-time clock can be synchronized with network by master node.
- Nonvolatile History Buffer (200 Alarm events, 1,000 System events).
- Two optically-isolated EIA-232 ports for printer and CRT terminal.
- Mounts in ABS-4D surface/semi-flush cabinet with door and key lock.
- Mounts in CAB-3 or CAB-4 Series cabinets, using ADP-4(B) hinged dress panel.
- An NCM is required for every NCA.
- 24 VDC power from remote or local supply (CAB-3/-4 Series cabinet required for local power).

SIB-NET

The SIB-NET is a plug-in board which allows an AM2020 or AFP1010 control panel to connect to **NOTI•FIRE•NET™**. It plugs into the panel ICA-4L Interconnect Chassis Assembly.

- Plug-in module may be retrofitted into existing systems.
- Accepts one MIB series module.
- Two EIA-232 ports for CRT terminals, or EDP listed devices.
- Two EIA-232 ports for PRN printers, or EDP listed devices.
- EIA-485 port for ACS annunciators, LDM Series, LCD-80, AMG, etc.

NAM-232

The NAM-232 (NAM-232F for Fiber, NAM-232W for Wire medium) provides the ability to connect the AFP-200, AFP-300 and AFP-400 intelligent control panels to NOTI•FIRE•NET™

AFP-200 NETWORK INTERFACE FEATURES:

- Acknowledge, Signal Silence,
- System Reset from NCA or ONYXWORKS®.
- Limited CCBE operation. Cannot participate in clock synchronization.
- Full network display.

AFP-300/400 NETWORK INTERFACE FEATURES:

- Acknowledge, Signal Silence, System Reset from NCA or NCS.
- Remote Annunciator Control from NCA.
- Read status, control On/Off, and point enable/disable from NCA or ONYXWORKS.®

- Limited CCBE operation. Cannot serve as a synchronization master clock.
- Full network display.

MIB Series Media Interface Boards

The MIB mounts "piggyback" onto the SIB-NET module. It operates at 312K bits per second and provides full signal regeneration and amplification before passing information on to the next node. In combination with the panel software, it will support NFPA Style 4 or 7 configurations. It is available in three versions: **MIB-W** (wire), **MIB-F** (fiber), and **MIB-WF** (hybrid wire/fiber).

RPT Series Repeater Modules

The RPT repeater is a single PC board that may be used to extend the distance of transmission. It may also be used to change media type between wire and fiber. The **RPT** may mount in the **ABS-8R** surface box, or in the **CAB-3** or **CAB-4** Series using one slot of the **CHS-4** or **CHS-4L**. Available as RPT-W (wire), RPT-F (fiber), and RPT-WF (wire/fiber converter). Requires 24 VDC.

Specifications

- **ONYXWORKS**®. See ONYXWORKS® data sheet, DN-7048.
- **NCA Network Control Annunciator.** See NCA data sheet, DN-6858.
- **NAM-232 Network Interface Board.** See NAM-232 data sheet, DN-5331.
- **SIB-NET Serial Interface Board**
  - **NFN interface**: standard MIB slot.
  - **EIA-232 terminal ports (2)**: 2,400 baud, isolated.
  - **EIA-232 printer ports (2)**: 2,400 baud, isolated
  - **EIA-485 ACS port**: 20,833 baud, isolated.
  - **Size**: 8.0" x 8.0" (203.2 x 203.2 mm).
  - **Compatible panels**: AM2020, AFP1010.
- **MIB-W Media Interface Board**
  - **Data rate (bits per second)**: 312,500.
  - **Maximum wire distance**: 3,000 feet (914.4 meters), two channels.
  - **Wiring type**: twisted pair.
  - **Wire size**: 14 AWG (2.0 mm²) to 18 AWG (0.75 mm²).
  - **Board size**: 3.5" (88.9 mm) x 5.0" (127.0 mm).
- **MIB-F Media Interface Board**
  - **Data rate (bits per second)**: 312,500.
  - **Fiber distance**: 10 dB loss, two channels.
  - **Fiber type**: dual, Plenum grade.
  - **Fiber size**: 62.5 µm/125 µm;
  - **Wavelength**: 850 nM.
  - **Connector type**: ST®.
  - **Board size**: 3.5" (88.9 mm) x 5.0" (127.0 mm)
- **MIB-WF Media Interface Board.** Specifications: same as MIB-W plus MIB-F; one channel wire, one channel fiber.
- **RPT-W, RPT-F, RPT-WF Repeaters.**
  - Wire/fiber specifications: same as MIB-W and MIB-F.
  - Board size: 4.4" (111.76 mm) x 6.5" (165.1 mm).
- **NCM-W Network Communications Module**
  - See NCM-W and NCM-F data sheet, DN-6861.
  - Compatible panels: NFS-640, NFS-3030.

- **NCM-F Network Communications Module**
  – See NCM-W and NCM-F data sheet, DN-6861.
  – Compatible panels: NFS-640, NFS-3030.
- **BACnet Gateway.** See BACnet Gateway data sheet, DN-6877.
- **NWS NOTI•FIRE•NET™ Web Server.** See NWS data sheet, DN-6928.

NOTI•FIRE•NET™ Version 5.0 Ordering/Compatibility Requirements

- The NAM-232 (for AFP-200, AFP-300/400) firmware must be version 5.0. To upgrade the NAM-232 for a version 5.0 network, order NROM-NAM5.0M.
- The SIB-NET (for AM2020/AFP1010) firmware must be version 5.0 To upgrade the IB-NET for a version 5.0 network, order AROM5.0M-SIB.
- NOTI•FIRE•NET™ version 5.0 will not support the INA.

Agency Listings and Approvals

The listings and approvals below apply to the basic NFS2-640 control panel. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

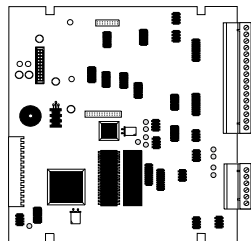- **UL Listed:** S635
- **ULC Listed:** CS118

Engineer/Architect Specifications

Complete specifications on NOTI•FIRE•NET™ and NOTIFIER's complete line of fire alarm control and peripheral devices are available from NOTIFIER.
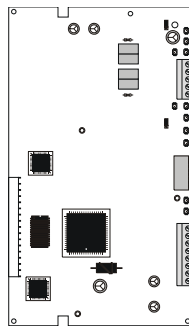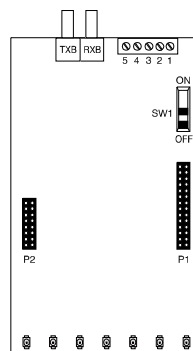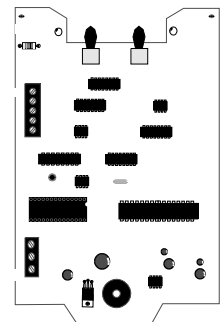
http://www.notifier.com
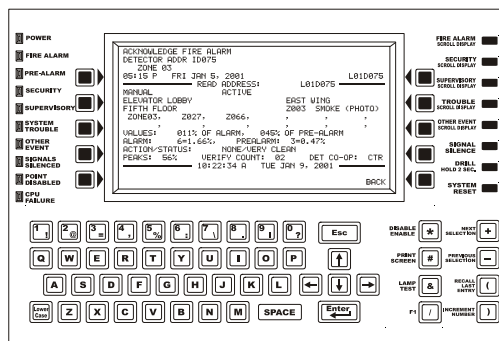
NCA

SIB-NET

NAM-232W

MIB-WF

RPT-WF

ISO 9001 CERTIFIED
ENGINEERING & MANUFACTURING
QUALITY SYSTEMS

This document is not intended to be used for installation purposes.
We try to keep our product information up-to-date and accurate.
We cannot cover all specific applications or anticipate all requirements.
All specifications are subject to change without notice.

For more information, contact Notifier. Phone: (203) 484-7161, FAX: (203) 484-7118.
www.notifier.com

Country of Origin U.S.A.