STRENGTH

Brand Partners Products

31ST ANNUAL LEADERSHIP CONFERENCE

WELCOME

Sales Application Training

Dan Corbett – Sr. Sales Applications Specialist

October 2017

NOTIFIER® by Honeywell

AGENDA

- How to Sell NOTIFIER
  - Brand Strength
  - Partner Strength
  - Product Strength
- ONYX Series
- Networking
- IP Gateways
- Voice and ECS
- Summary

Strength in our BRAND

Globally recognized Life Safety Systems for over 60 years

Over 400 independent global business partners (ESDs)

Highly Specified Products within a broad range of applications

ESDs empowering the strength of our brand

Strength in our PARTNER

Global Presence, Local Knowledge

Providing Outstanding Quality Solutions and Services

Factory Trained and Certified Professional Subject Matter Experts

Authorized ESD/Partner Network

Strength in our **PRODUCT**

Connected Network Solutions meeting the needs of the most complex applications

Front Panel Programming & Simple Address Device Setting

Expandable, Flexible, Backwards Compatible

Broadest Advanced Detection Portfolio

The ONYX® Series



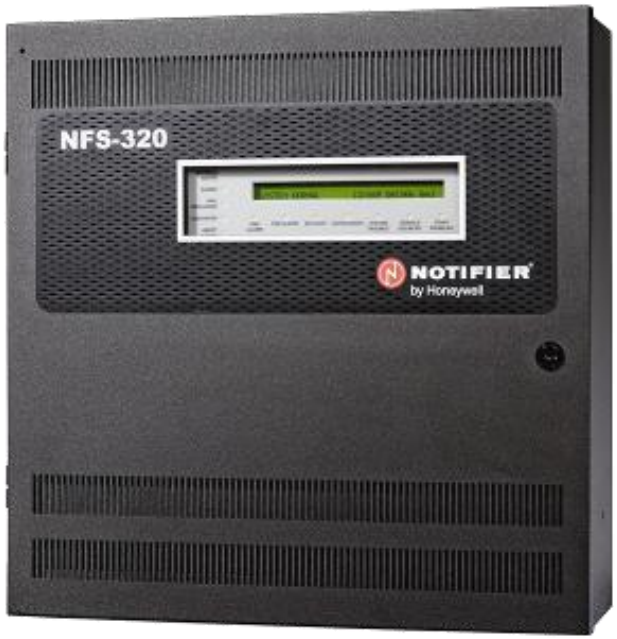
The Ultimate in Life Safety and Emergency Communications Technology

STRENGTH

ONYX Series Comparison

Feature	NFS-320	NFS2-640	NFS2-3030
Signaling Line Circuit (SLC)	1 SLC	1 SLC, expandable to 2	Up to 10 SLC Loops
Maximum number of intelligent points	Up to 318 (159 detectors and 159 modules)	Up to 636 (159 detectors/159 modules per SLC)	Up to 3,180 (159 detectors/159 modules per SLC)
Networkable (via NOTI•FIRE•NET)	✓	✓	✓
Audio Evacuation	FirstCommand for stand alone, DVC for Noti-Fire-Net	Optional Integrated Digital Voice Command (DVC)	Optional Integrated Digital Voice Command (DVC)
Programmable software zones	146 (100 general, 20 logic, 10 releasing, 16 special function)		2000+ (1,000 general, 1,000 logic, 10 releasing, 22 special function)
Event History Capacity/Alarm-Only	800/200		4,000/1,000
Approvals	▪ UL, ULC ▪ FDNY, CSFM ▪ FM, Marine, Seismic		

NFS-320



- Single SLC Loop Addressable Life Safety System
  - Maximum 159 addressable detectors & 159 addressable modules
- Standalone panel or networkable via Noti-Fire-Net
- Standard and Advanced Detection Capabilities
- Multiple Off-Premise Communication Options
- Multiple Integration Options
- Listed for releasing applications

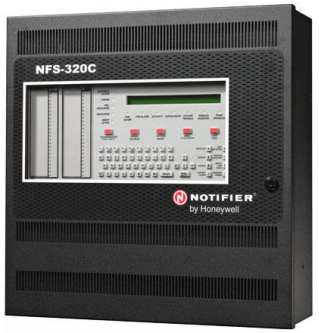
Typical Applications	
	K-12 Schools
	Standalone Retail
	Small Commercial
	Strip malls
	Restaurants

NFS-320 Series

- NFS-320 (One part to order)
  - Includes CPU, chassis, dress panel, cabinet and display keypad



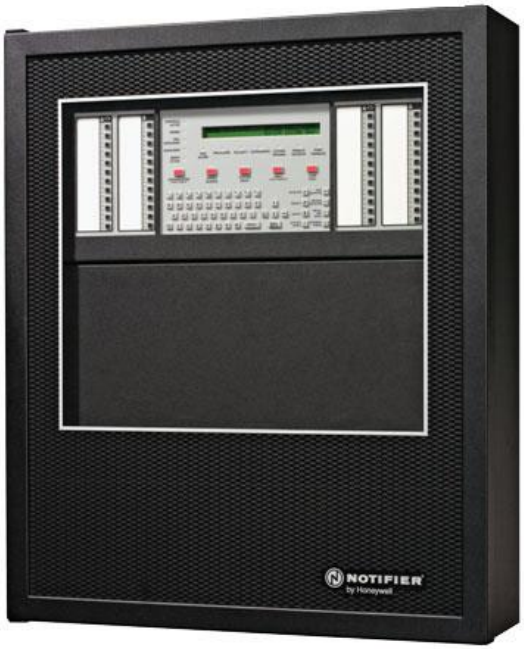
- NFS-320C (One part to order)
  - Includes CPU, chassis, dress plate, cabinet and display keypad
    - Dress panel accommodates installation of an optional ACS series annunciator, annunciator ordered separately
      - For jurisdictions requiring local LED annunciation, or for control capabilities
        - UL and ULC listed



NFS-320C ‘Drill’ switch changing to ‘Alarm Signal’

NFS-320 Series

- NFS-320SYS
  - Modular system, configured to meet the application
    - New single SLC applications that require additional equipment within the CAB-4 series enclosure
    - Retrofit applications utilizing existing CAB-4 or CAB-3 series enclosures
      - System 5000 upgrades
      - AFP-300 or AFP-400 upgrades
    - Multiple cabinet options to house the required equipment
      - 1 row to 4 fours (A-D size cabinets and doors)
    - Multiple chassis options for FACP equipment
      - CHS-4, CHS-4L, CH-6



NFS2-640

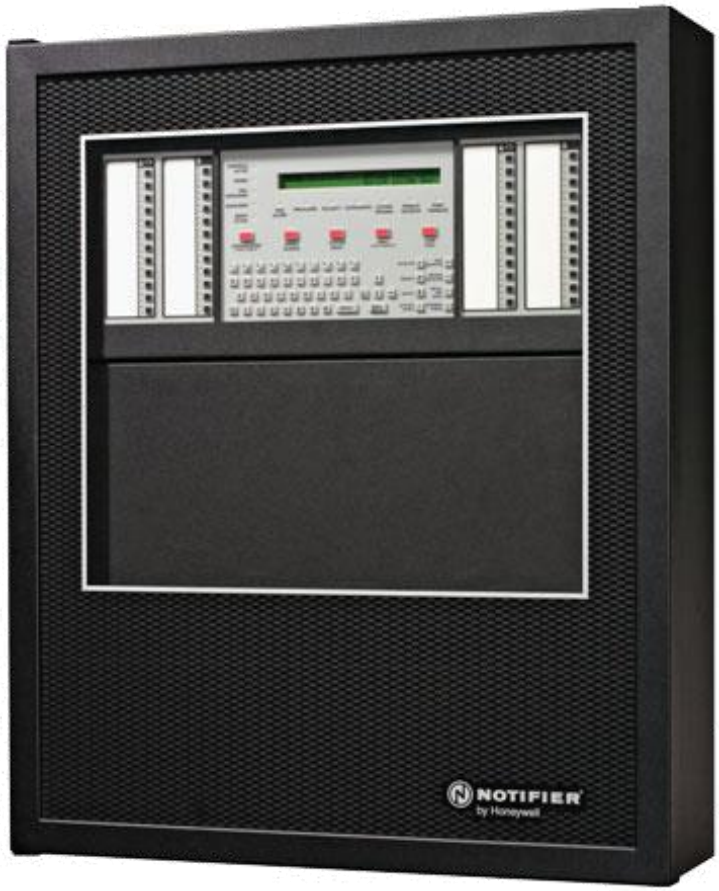


- Single or Dual SLC Loop Addressable Life Safety System
  - Maximum 318 addressable detectors & 318 addressable modules
- Standalone system or networkable via Noti-Fire-Net
- Standard and Advanced Detection Capabilities
- Integrated Digital Voice Option
- Listed for releasing applications
- Multiple Off-Premise Communication Options
- Multiple Integration Options

Typical Applications	Commercial Offices
	Educational buildings
	Assisted Living Facilities
	Strip Malls
	Hotels

NFS2-640

- Modular system
- Required components:
  - CPU2-640 (includes one SLC and ships on a chassis)
  - Display (if network a display is not required but is recommended)
  - Backbox and door
  - Dress panels



NFS2-3030



- Multiple Loop Addressable Life Safety System
  - Up to 10 SLC loops (159 dets and 159 mods per loop)
  - 1,590 addressable detectors & 1,590 addressable modules
- Standalone panel or networkable via Noti-Fire-Net
- Standard & Advanced Detection Capabilities
- Integrated Digital Voice Option
- Listed for releasing applications
- Optional addressable 4-20 mA analog input module
- Multiple Off-Premise Communication Options
- Multiple Integration Options

Typical Applications	High Rise Buildings	Airports
	College/University Campus	Hospitals
	Shopping Malls	Sports Arenas
	Manufacturing Facilities	Hotels

NFS2-3030



- Supports up to 10 SLCs
  - Support Style 4,6 or 7 per loop
  - Up to 3,180 intelligent points
    - 159 Detectors per SLC in FlashScan mode
      - 99 in CLIP mode
    - 159 Modules per SLC in FlashScan
      - 99 in CLIP mode
  - NOTIFIER's Patented FlashScan Communication Protocol
    - Highest device capacity per loop in the industry
    - Response times that exceed UL and NFPA requirements; inputs less than 3 seconds, outputs less than 5 seconds
- 1,000 General Zones
  - For standard Control By Event programming
- 1,000 Logic Zones
  - For more complex programming configurations using Boolean logic

Note: The CPU2-3030 does not include an SLC loop, power supply or NAC Ckts

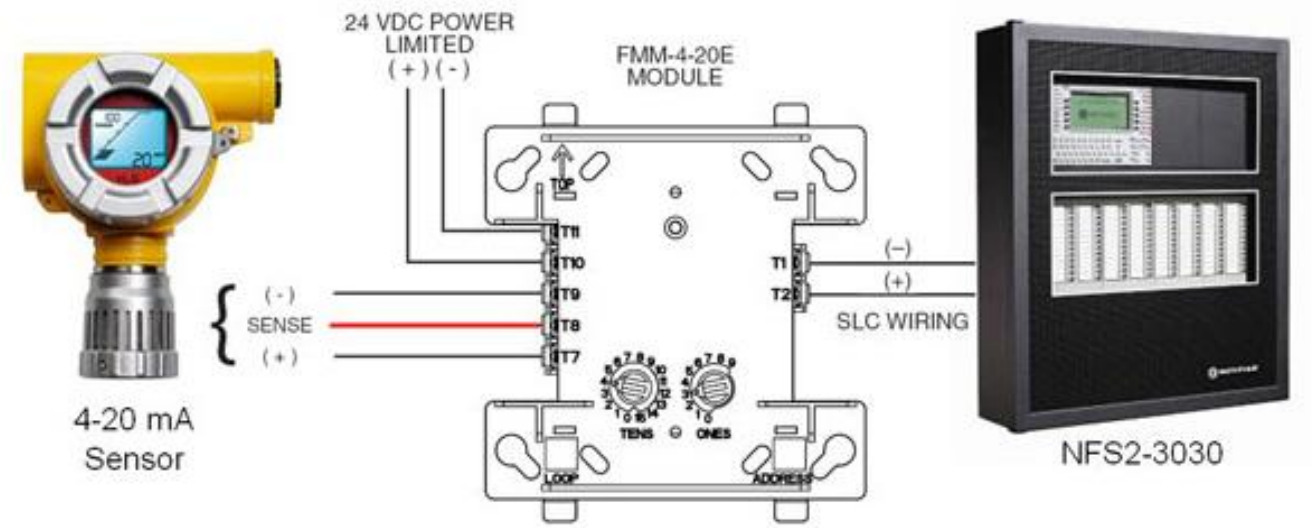
NFS2-3030

- Display Options
  - 640-Character Display
  - No Display
- Primary Power Supply Required
  - AMPS-24 (120 VAC)
  - AMPS-24E (240 VAC)
- Multiple Power Supply Options for Notifications Appliance Circuits (NAC)
  - ACPS-610 Series
  - FCPS-24S Series
  - HPFF Series (chassis mount options)
    - All of these can be used with any ONYX panel



NFS2-3030 with FMM-4-20

- NFS2-3030 is FM6320 Approved for Gas Detection
  - Requires FMM-4-20 analog input monitor module
    - Can interface to any industry-standard, linear scale, 4-20 mA protocol sensor
      - Gas, Oxygen, Temperature etc…



NFS2-3030

- Modular system
- Required components:
  - CPU2-3030 with Display…?
    - If networked a display is not required…but recommended
  - Chassis to mount CPU2-3030
    - CHS-M3 (no DVC or with DVC without FFT)
    - CA-2 (with DVC and FFT)
  - At least one loop card
  - AMPS-24 power supply
  - Backbox and door
  - Dress panels



NFS-320 Voice Options

- FirstCommand-50/100 Series
  - Activate via direct ACS bus connection for control of messages and speaker circuits on the FirstCommand
  - Or …activate via a NAC or dry contact closure
    - NFC could be used with any panel

- Networked Digital Voice
  - When residing on Noti-Fire-Net the NFS-320 can activate the Digital Voice Command via Logic Zone programming

NFS2-640 Voice Options

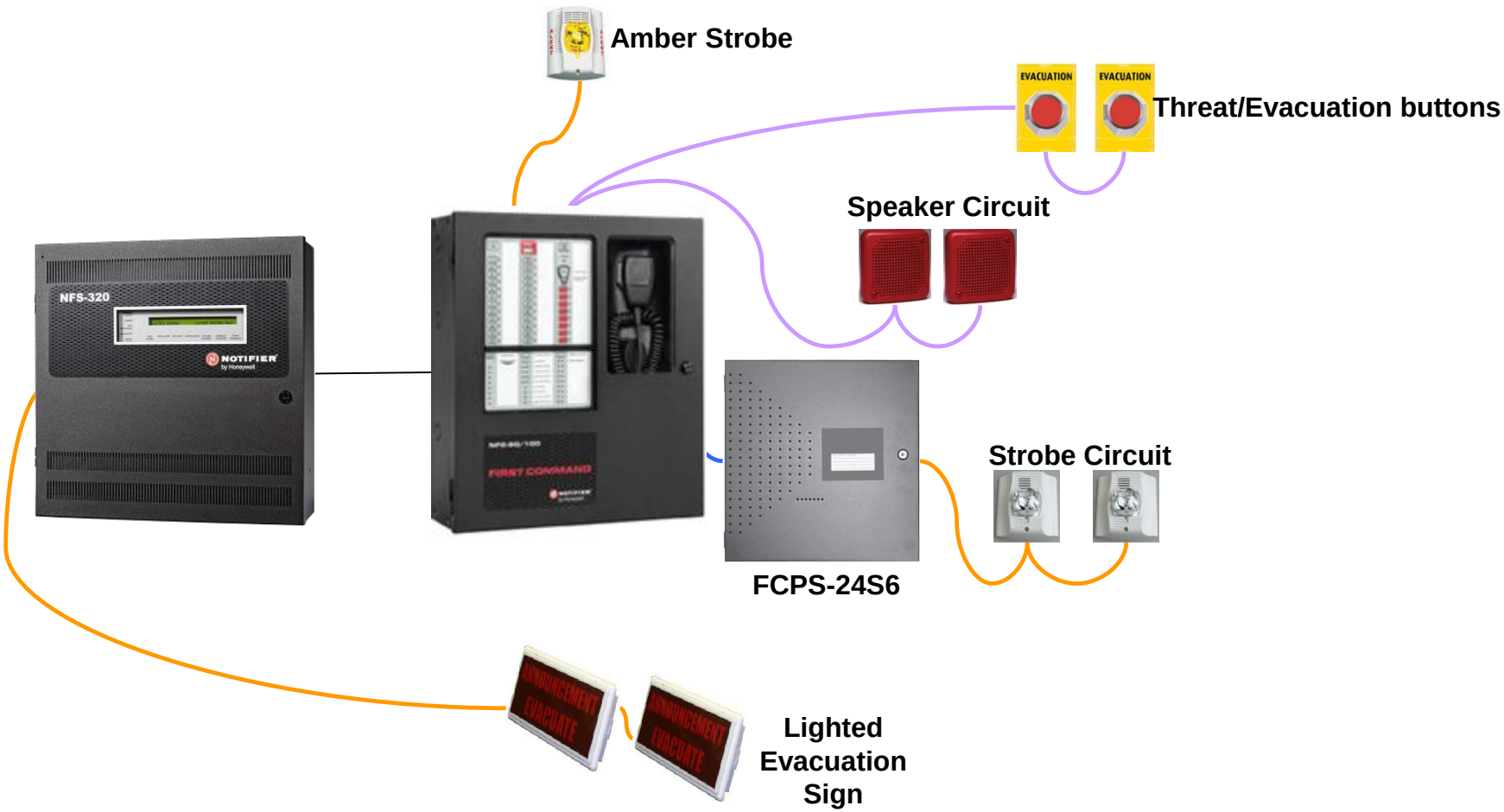
- FirstCommand-50/100 Series
  - Activate via direct ACS bus connection for control of messages and speaker circuits on the FirstCommand….Or activate via dry contact closure
- Standalone/direct connect to DVC
  - If using Digital Audio Loop (DAL) devices (DAA2/DAX/DS-DB, etc…) an NCA-2 is required as the primary display to annunciate DAL events
    - Refer to the DVC applications guide for valuable information of configuration
- Networked Digital Voice
    - When residing on Noti-Fire-Net the NFS2-640 can activate the Digital Voice Command via Logic Zone programming

NFS2-3030 Voice Options

- Standalone/Direct connect
  - Plug the CPU2-3030D NUP directly into the DVC NUP
    - Not networkable, if networked each would require a network card

- Networked Digital Voice
    - When residing on Noti-Fire-Net the NFS2-3030 can activate the Digital Voice Command via Logic Zone programming
      - If the NFS2-3030 is networked the CPU and DVC each require a network connection

NFS-320/NFS2-640 Voice with FirstCommand-50/100



Stand-Alone NFS2-640 with Digital Voice Command

- This application requires at least:
  - CPU2-640
  - DVC (Keypad and Mic at a minimum)
  - NCA-2
  - Amplifiers
  - Appropriate Hardware
    - (cab, chassis, dress panels, etc…)

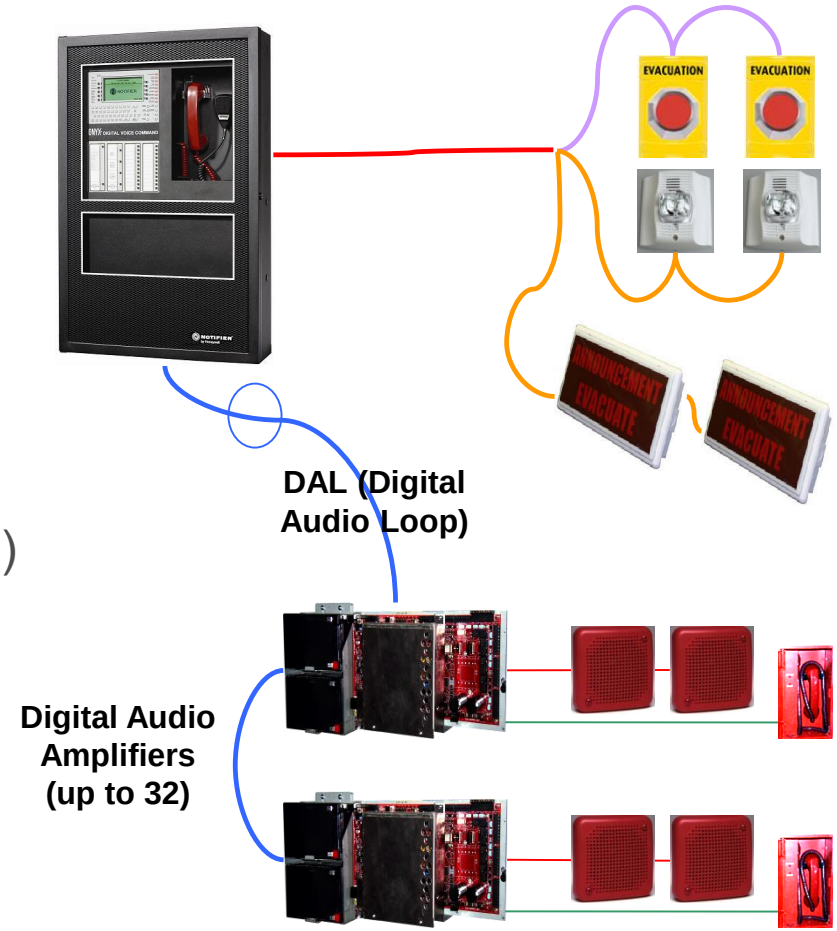
If this changed into a network application network control modules would be required



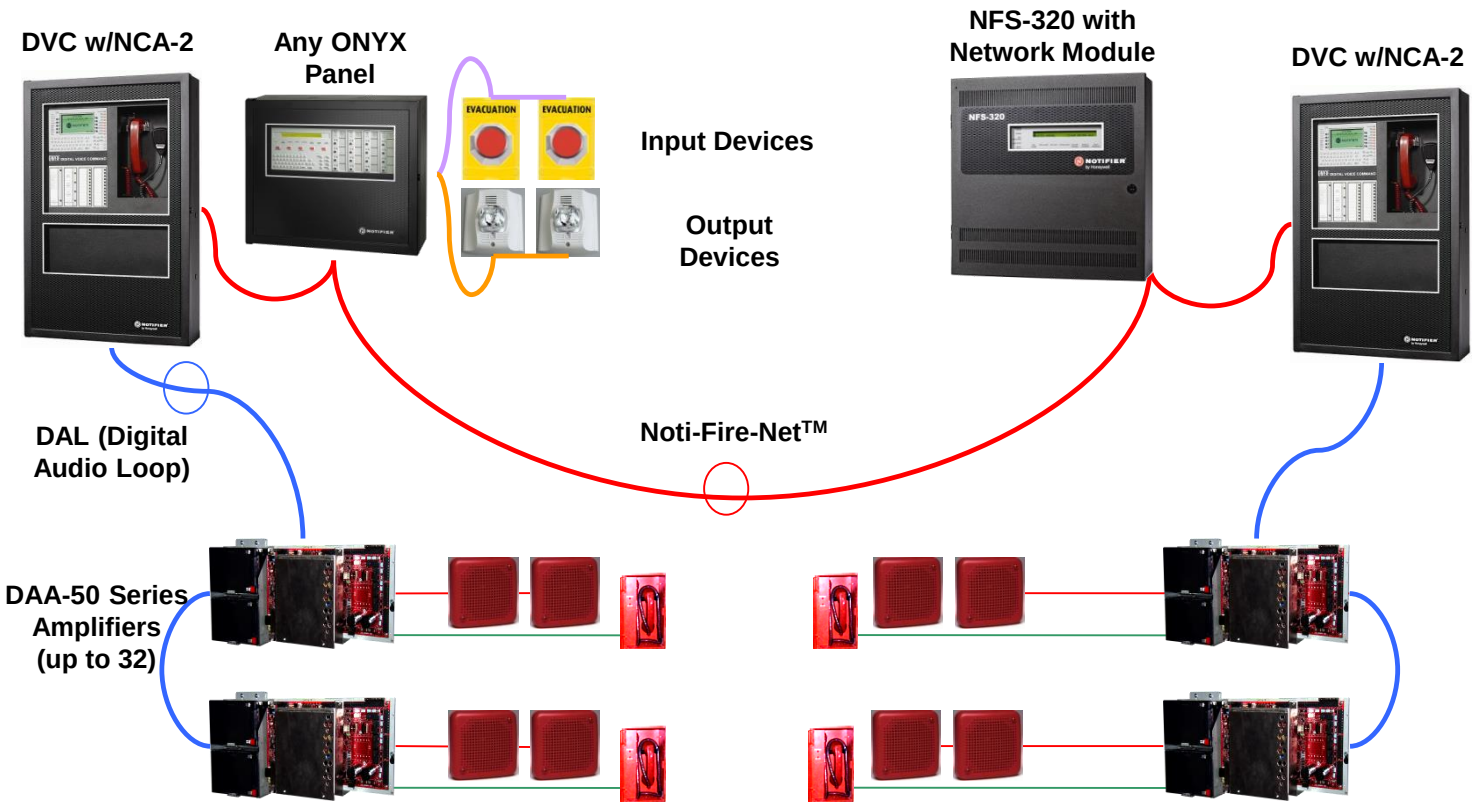
Stand-Alone NFS2-3030 with Digital Voice Command

- This application requires
  - CPU2-3030D
  - DVC
    - Keypad and Mic at a minimum
  - Amplifiers
  - Appropriate Hardware
    - (cab, chassis, dress panels, etc…)

If this changed into a network application network control modules would be required



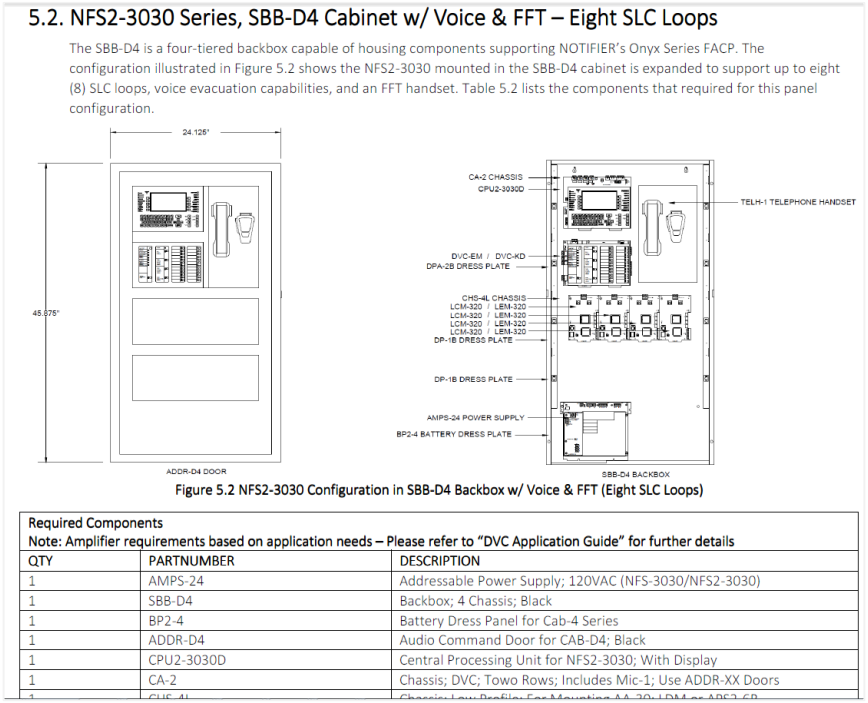
Networked ONYX with Digital Voice Command



ONYX Series Support Resources

- ONYX Series Configuration Manual
  - Will provide drawings; both overview and detailed parts locations within the enclosure. Along with all the required parts and some optional components
    - Covers FACP head end with or without DVC, and with or without FFT





5.2. NFS2-3030 Series, SBB-D4 Cabinet w/ Voice & FFT – Eight SLC Loops

The SBB-D4 is a four-tiered backbox capable of housing components supporting NOTIFIER's Onyx Series FACP. The configuration illustrated in Figure 5.2 shows the NFS2-3030 mounted in the SBB-D4 cabinet is expanded to support up to eight (8) SLC loops, voice evacuation capabilities, and an FFT handset. Table 5.2 lists the components that required for this panel configuration.

Figure 5.2 NFS2-3030 Configuration in SBB-D4 Backbox w/ Voice & FFT (Eight SLC Loops)

Required Components
Note: Amplifier requirements based on application needs – Please refer to "DVC Application Guide" for further details

QTY	PARTNUMBER	DESCRIPTION
1	AMPS-24	Addressable Power Supply; 120VAC (NFS-3030/NFS2-3030)
1	SBB-D4	Backbox; 4 Chassis; Black
1	BP2-4	Battery Dress Panel for Cab-4 Series
1	ADDR-D4	Audio Command Door for CAB-D4; Black
1	CPU2-3030D	Central Processing Unit for NFS2-3030; With Display
1	CA-2	Chassis; DVC; Towo Rows; Includes Mic-1; Use ADDR-XX Doors
1	CHS-4L	Chassis; Low Profile; For Mounting AA-30; LDM or APS2-6R

ONYX Series Support Resources

- Your local NOTIFIER RSM (add a funny pic for these guys)

- Dan Corbett (add my pic)
  - Sr. Sales Applications Specialist
  - Dan.Corbett@Honeywell.com
  - ONYX Series, DVC, Advanced Detection

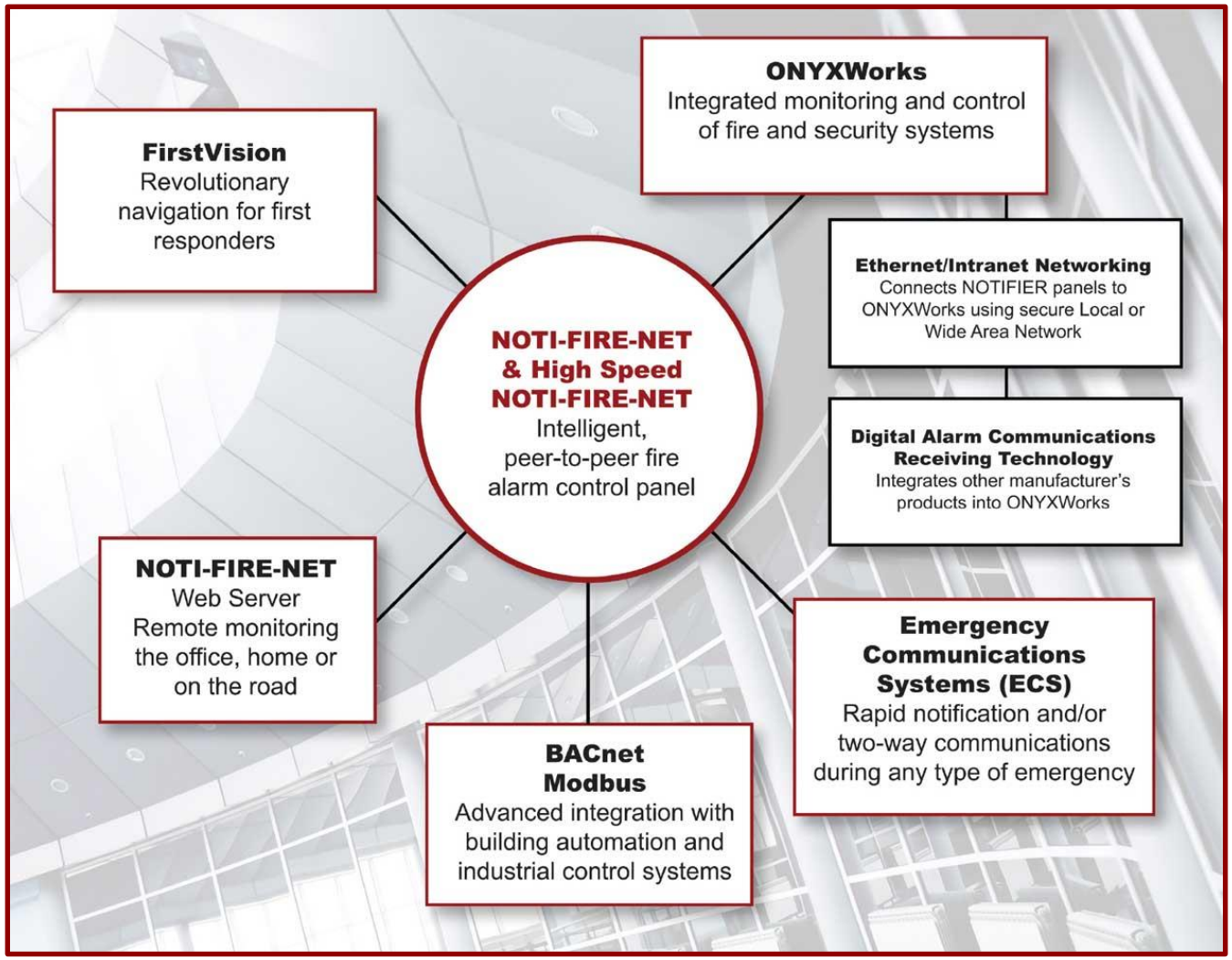
- Dave Tamulevich (add DTs pic)
  - Sr. Sales Applications Specialist
  - David.tamulevich@Honeywell.com
  - ONYXWorks, FirstVision, Gateways

Networking



Key to a Single Interface Solution

Networking is Key to a Single Interface Solution



Networking

- Allows multiple panels/products (referred to as “nodes”) be interconnected together, with the ability for inputs on one node to activate outputs on other nodes
- UL/ULC requires there to be at least one network display node that can annunciate all nodes
  - Network Display options
    - NCA-2, ONYXWorks Workstation, NFS2-3030 in network display mode



NOTI-FIRE-NET

- Unites multiple NOTIFIER intelligent fire alarm control panels as one
  - LAN or WAN
  - Connect using wire, fiber or IP
- Industry leading network node/panel capacity – up to 200 nodes!
- All panels operate independently, yet cohesively, for unified response
- Enhanced survivability – communications loss will not compromise life safety
- Network-wide display and control

Backbone of a robust Emergency Communications System

NOTI-FIRE-NET Applications

Typical Applications







- Universities
- Offices
- Hotels
- Airports
- Hospitals
- Schools

NOTI-FIRE-NET

- Backward and forward compatible
- Supports all NOTIFIER intelligent systems
  - NFS-320
  - NFS/NFS2-640
  - NFS/NFS2-3030
  - NCA/NCA2
  - AM2020/AFP-1010
  - AFP-400/300
  - AFP-200



Network grows with you as your business needs expand

NOTI-FIRE-NET

- What's a node on NFN?
  - Equipment that connects to Noti-Fire-Net (NFN) and communicates with other equipment using the NFN network
    - NFS-320
    - NFS2-640/NFS-640
    - NFS2-3030/NFS-3030
    - DVC
    - NCA-2/NCA
    - Legacy Network Panels (2020/1010/200/300/400)
    - Gateways
      - NFN Gateway (PC and Embedded)
      - BACnet Gateway
      - MODbus Gateway
      - NWS Webserver

Network Comparison: Standard vs High Speed

Feature	Standard	High Speed
Nodes	103	200
Nodes With DVC Support	54	200
Node Addresses per NCM	1	2
Media	Wire Multimode Fiber	Wire Multimode Fiber Singlemode Fiber
Communication Speed	Wire = 312.5Kb Multimode Fiber = 312.5Kb	Wire = 12Mb Multimode Fiber = 100Mb Singlemode Fiber = 100Mb
Wire		
Distance	3,000 ft maximum	3,000 ft maximum
Gauge	14-18 AWG	14-18 AWG
Configuration	Point-to-Point and Bus	Point-to-Point
Multimode Fiber		
62.5/125µm	8dB Limit	10dB Limit
50.0/125µm	4.2dB Limit	6.5dB Limit
Wavelength	850nm	1310nm
Connector Style	ST	LC
Singlemode Fiber		
9.0/125µm	Discontinued Converters	30dB Limit
Connector Style	ST	LC

NCM Overview (For Standard NFN)

- NCM (Network Control Module)
  - NCM-MF — Multimode Fiber
  - NCM-W — Wire



NCM-W

  - RPT-W — Network wire repeater
  - RPT-F — Network fiber optics repeater
  - RPT-W/F — Network wire to fiber repeater

NOTE: Standard NCM do not support single-mode fiber

HS-NCM Overview (For High-Speed NFN)

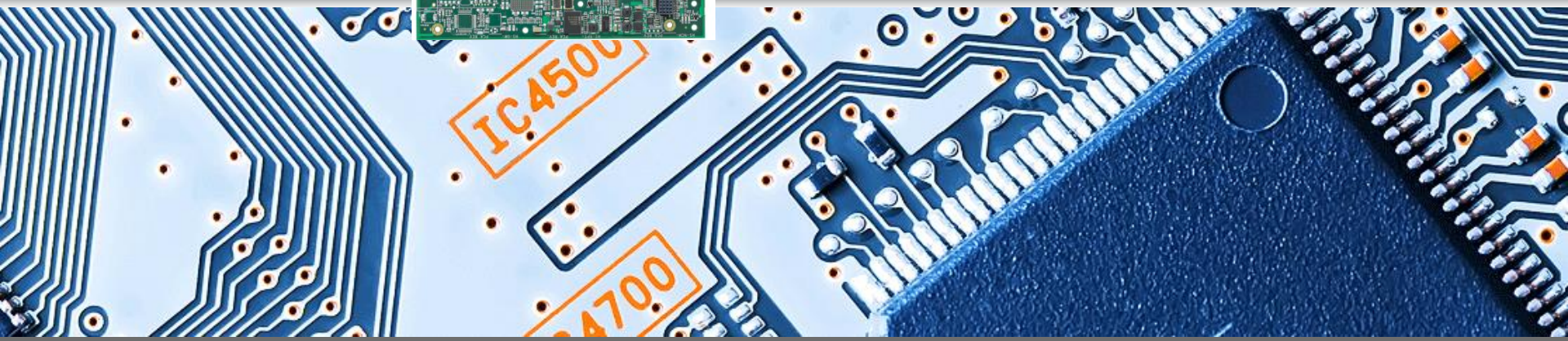
- High Speed NCM (HS Network Control Module)
  - HS-NCM-MF Multimode Fiber
  - HS-NCM-MFSF Multimode/Single-mode Fiber
  - HS-NCM-SF Single-mode Fiber
  - HS-NCM-W Wire
  - HS-NCM-WMF Wire/Multimode Fiber
  - HS-NCM-WSF Wire/Single-mode Fiber



HS-NCM-MF

IP Gateways

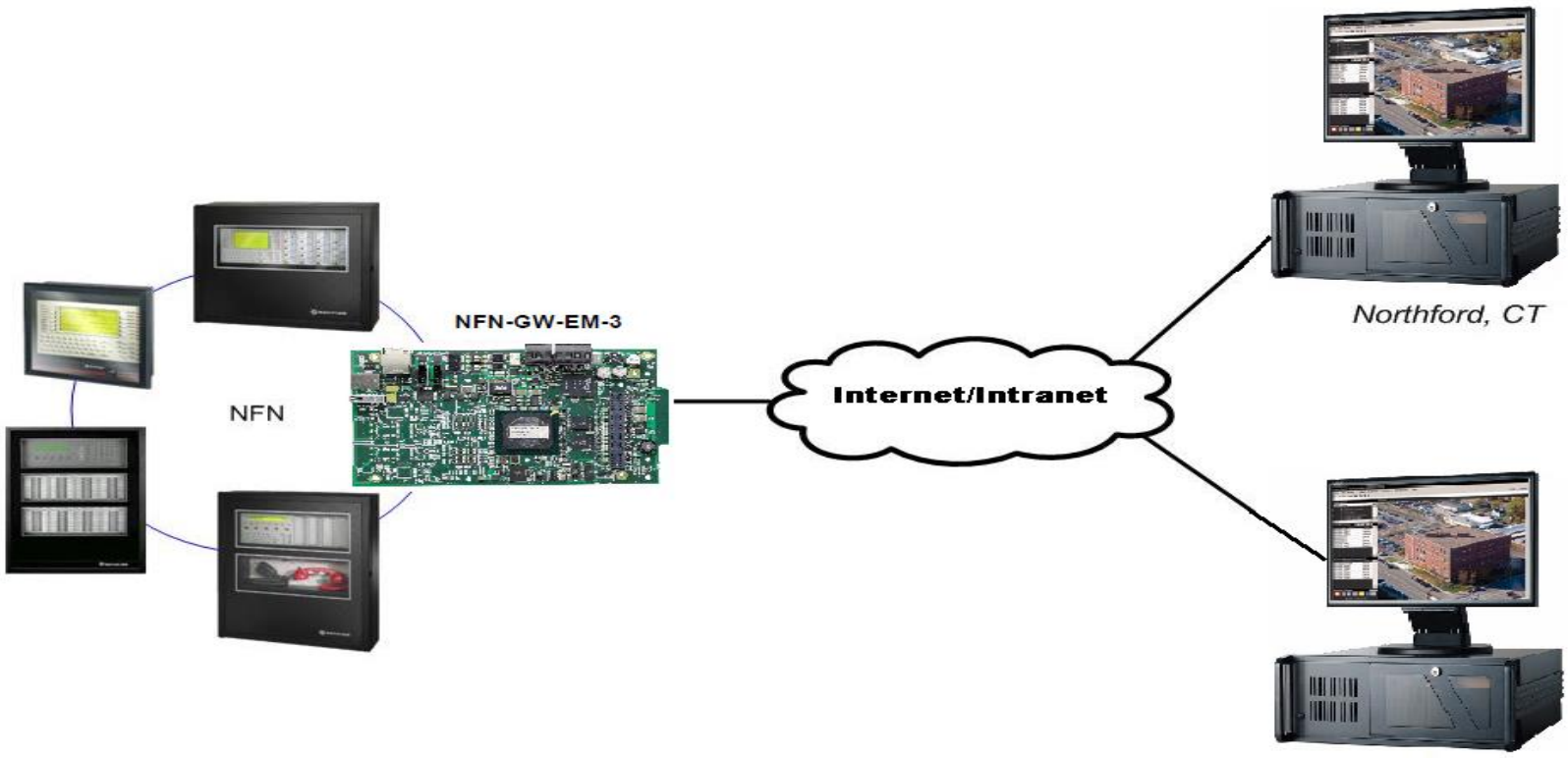




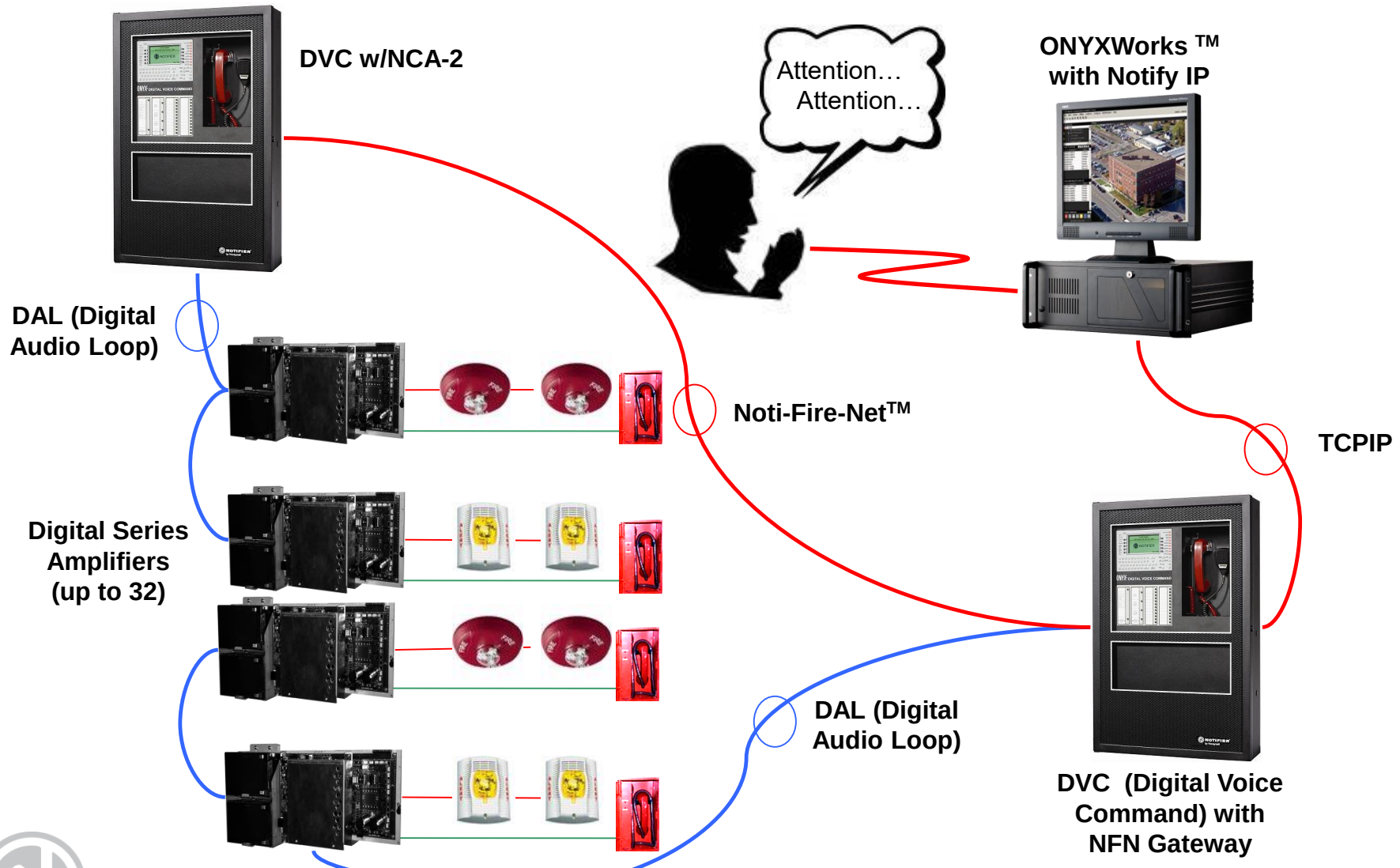
Monitor and Control Remote ONYX Product, Integrate Competitive Products, Share System information with 3rd Party Front-ends

NFN Gateway (NFN-GW-EM-3)

- Ethernet IP Gateway for remote connection to ONYXWorks
  - Single FACP or Noti-Fire-Net
- Perfect solution for wide area networking
  - Add NOTIFY-IP for live voice paging option



NOTIFIER ECS: NOTIFY-IP



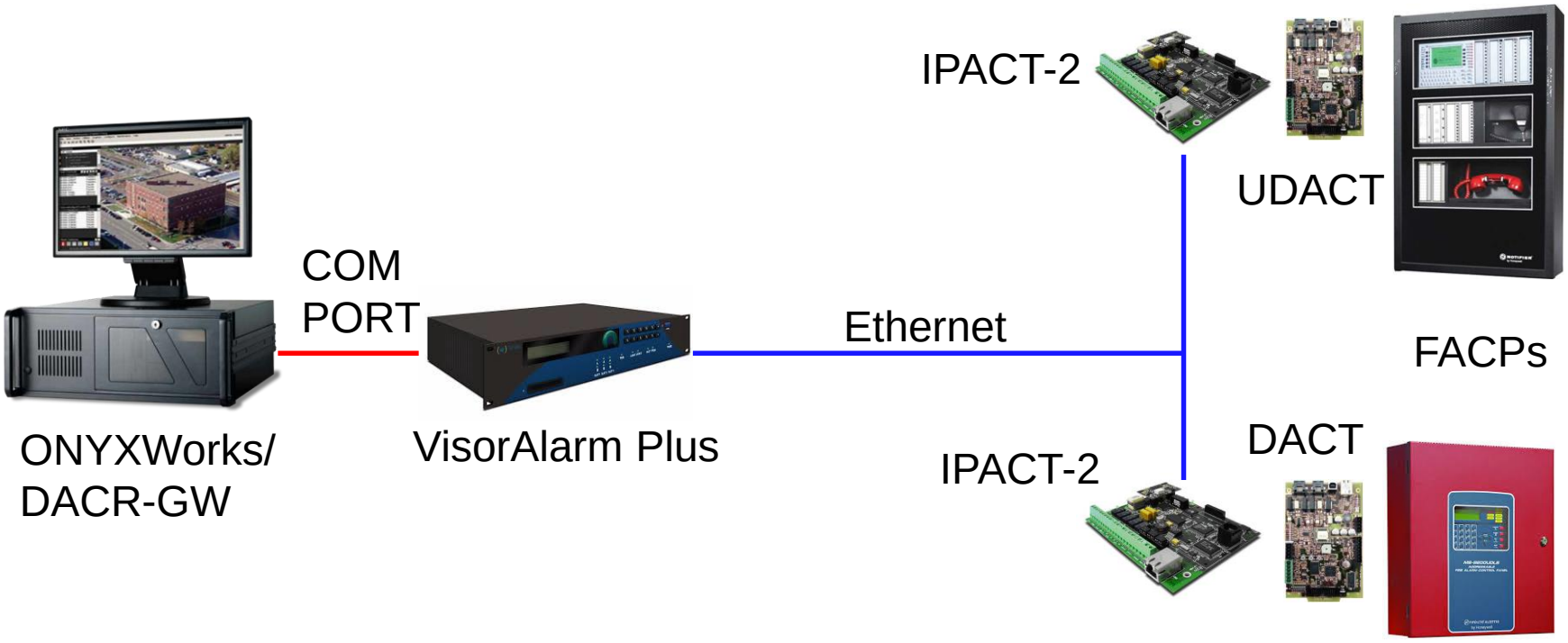
Receivers Gateway

- An intelligent gateway interface to digital alarm communicator receivers (DACR) for the ONYXWorks facilities monitoring workstation

- Enables the ONYXWorks workstation to monitor remote fire and security panels equipped with Contact ID capable digital alarm communicator transmitters (DACT) for real-time events

- Compatible with the Ademco 685, Silent Knight 9500 and 9800, Bosch D6600, and the Teldat Visor Alarm

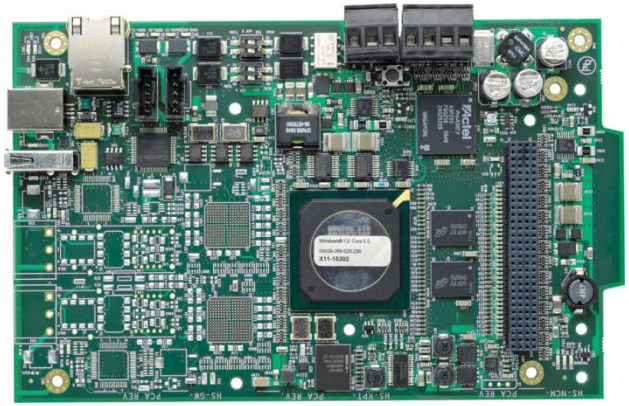
Digital Alarm Communications (DACT/DACR)



Integrate NON-NOTIFIER products into a common network for a Single Interface

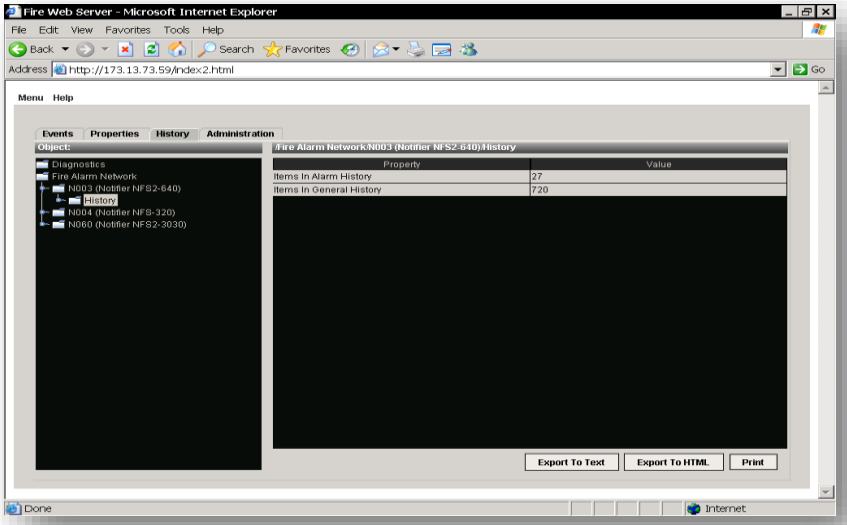
ONYX Series Integration Gateways

Product	Application
BACNET-GW-3	Integration with BACnet clients such as Building Management Systems
MODBUS-GW	Integration with Modbus clients such as DCS systems in industrial applications
CAP-GW	Integration with CAP compliant clients such as At-Hoc

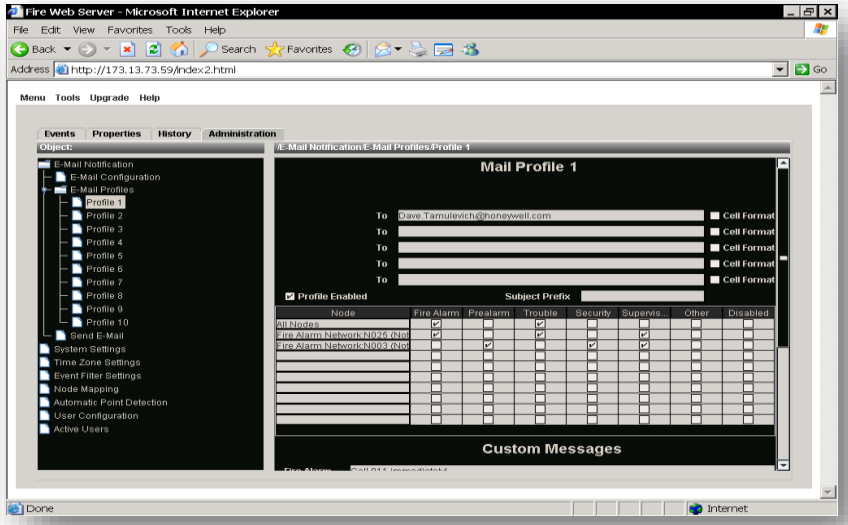


NOTIFIER Web Server Gateway (NWS-3)

- Access FACP status remotely over the internet or intranet
- Send automatic emails or text messages (up to 50)



View History Remotely

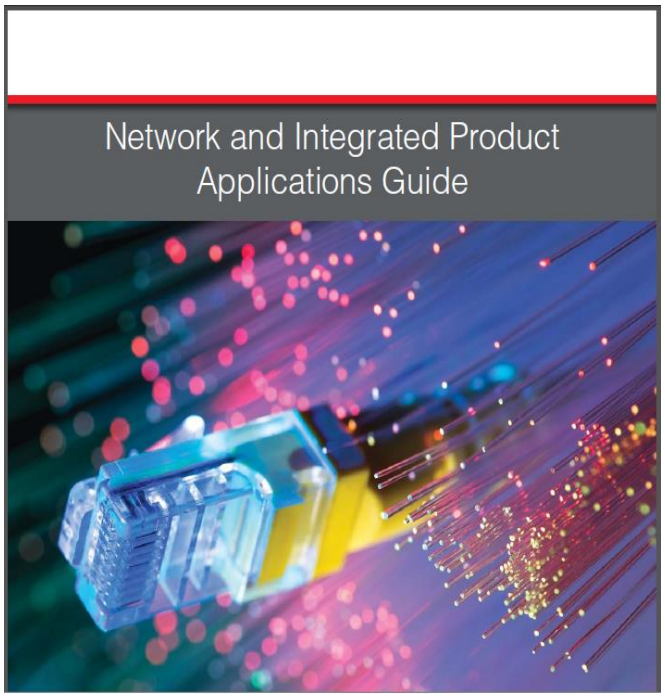


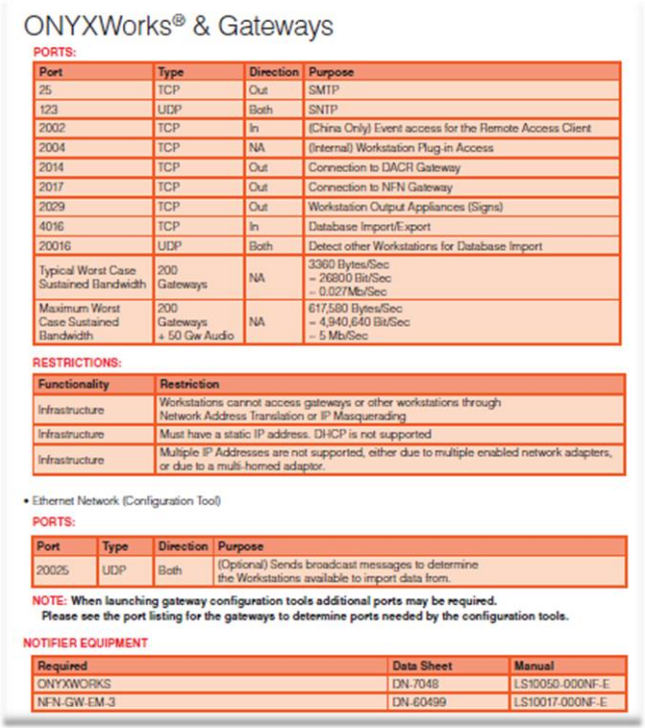
Email Profile Configurations

The email server must support sending email without authentication

Network Product Support Resources

- Network and Integrated Product Applications Guide
  - Great resource for a better understanding of networking applications and associated
  - Helpful in addressing IT departments concerns/questions





ONYXWorks® & Gateways

PORTS:

Port	Type	Direction	Purpose
25	TCP	Out	SMTP
123	UDP	Both	SNTP
2002	TCP	In	(China Only) Event access for the Remote Access Client
2004	TCP	NA	(Internal) Workstation Plug-in Access
2014	TCP	Out	Connection to DACR Gateway
2017	TCP	Out	Connection to NFN Gateway
2029	TCP	Out	Workstation Output Appliances (Signs)
4016	TCP	In	Database Import/Export
20016	UDP	Both	Detect other Workstations for Database Import
Typical Worst Case Sustained Bandwidth	200 Gateways	NA	3360 Bytes/Sec = 26800 Bit/Sec = 0.027Mb/Sec
Maximum Worst Case Sustained Bandwidth	200 Gateways + 50 Gw Audio	NA	617,580 Bytes/Sec = 4,940,640 Bit/Sec = 5 Mb/Sec

RESTRICTIONS:

Functionality	Restriction
Infrastructure	Workstations cannot access gateways or other workstations through Network Address Translation or IP Masquerading
Infrastructure	Must have a static IP address. DHCP is not supported
Infrastructure	Multiple IP Addresses are not supported, either due to multiple enabled network adapters, or due to a multi-homed adaptor.

• Ethernet Network (Configuration Tool)

PORTS:

Port	Type	Direction	Purpose
20025	UDP	Both	(Optional) Sends broadcast messages to determine the Workstations available to import data from.

NOTE: When launching gateway configuration tools additional ports may be required. Please see the port listing for the gateways to determine ports needed by the configuration tools.

NOTIFIER EQUIPMENT

Required	Data Sheet	Manual
ONYXWORKS	DN-7048	LS10050-000NF-E
NFN-GW-EM-3	DN-60499	LS10017-000NF-E

Network Product Support Resources

- Your local NOTIFIER RSM (add a funny pic for these guys)

- Dave Tamulevich (add DTs pic)
  - Sr. Sales Applications Specialist
  - David.tamulevich@Honeywell.com
  - ONYXWorks, FirstVision, Gateways

- Dan Corbett (add my pic)
  - Sr. Sales Applications Specialist
  - Dan.Corbett@Honeywell.com
  - ONYX Series, DVC, Advanced Detection

Voice/Emergency Communication Systems

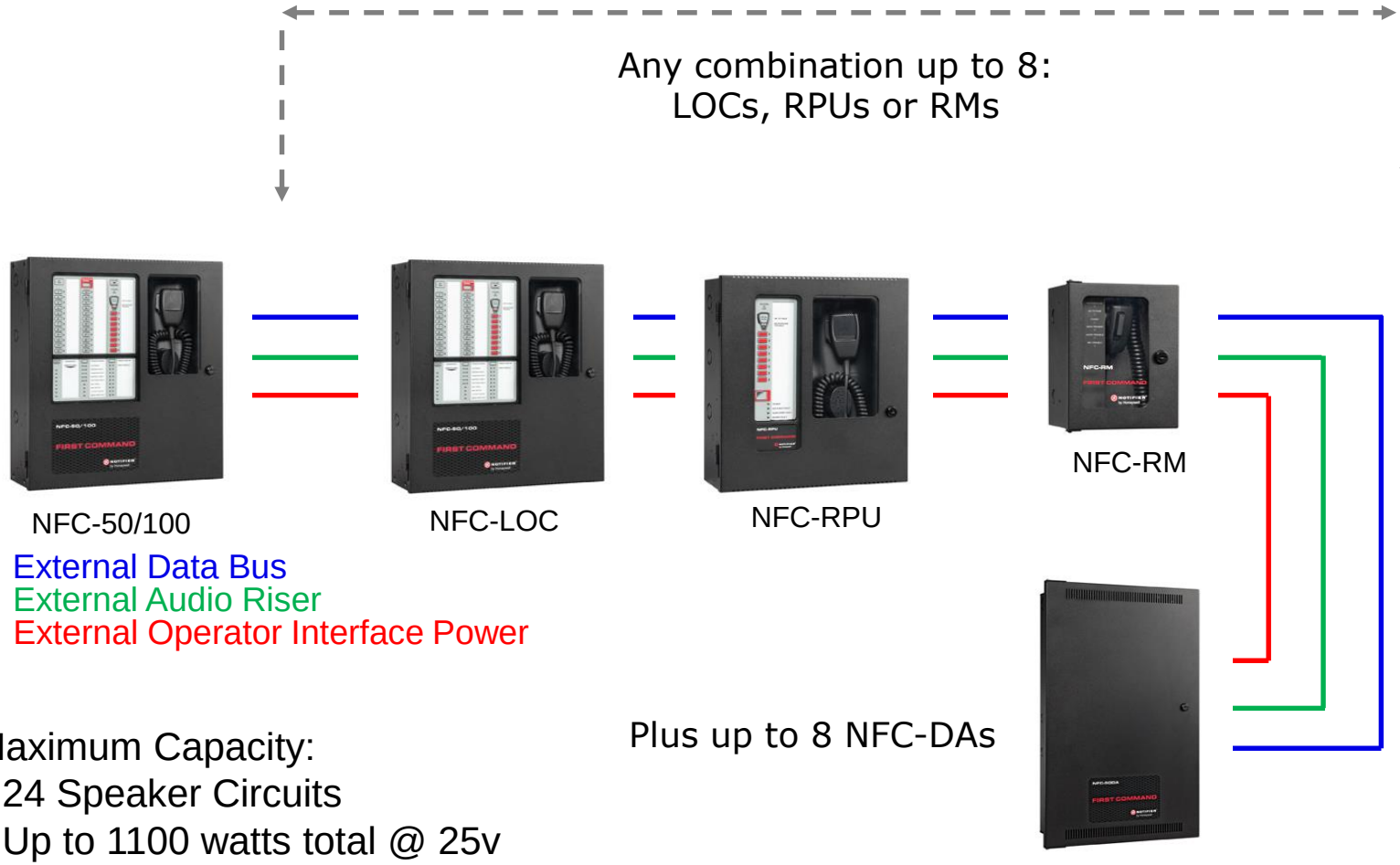


Right Message, Right Individuals,
Right Time, Right Technology

FirstCommand and DVC Comparison

Feature	FirstCommand	DVC
Audio Channels	1	8
Networkable	No	Yes
Distributed Amplifiers	Up to 8	Up to 32 (per DVC)
Media to connect Distributed Amplifiers	Wire (requires 3 pairs)	Wire Multimode Fiber Singlemode Fiber (requires 1 pair)
Configurable in one enclosure	No	Yes
Integrated Fire Fighters Telephone	No	Yes
Peripheral Devices		
Local Operator Consoles	Up to 8	Unlimited
Remote Paging Units	Up to 8	Up to 32 per DVC
Remote Microphones	Up to 8	Unlimited

NFC-50/100 System Architecture

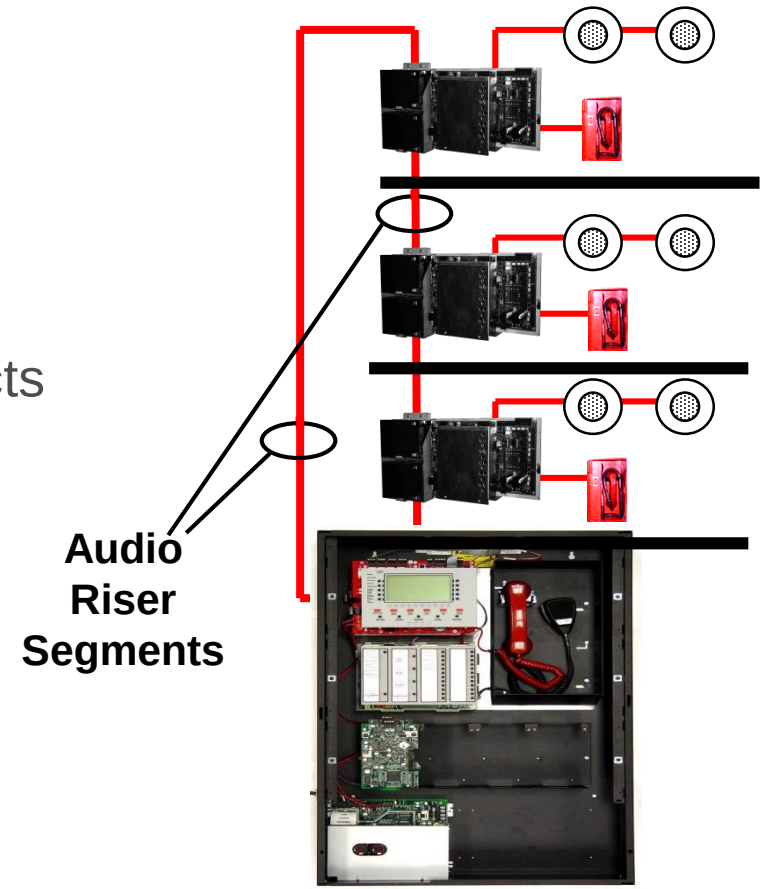


Maximum Capacity:

- 24 Speaker Circuits
- Up to 1100 watts total @ 25v
- Up to 900 watts total @ 70v

ONYX DVC System Architecture

- DVC Digital Audio Loop supports wire, single-mode fiber, multi-mode fiber or hybrid (combination of medias) in Style 4 or Style 7 configurations
  - Speaker control
  - 8 voice channels
  - Firefighter telephones
  - Paging
  - Up to 32 Digital Audio Products
    - Per DVC



ONYX DVC Wattage Capabilities

DAA Series Amplifiers

- One DAL address
- 32 total addresses
  - Up to 32 DAA series
- 32 x *100 (watts)
  - Max 3,200 watts

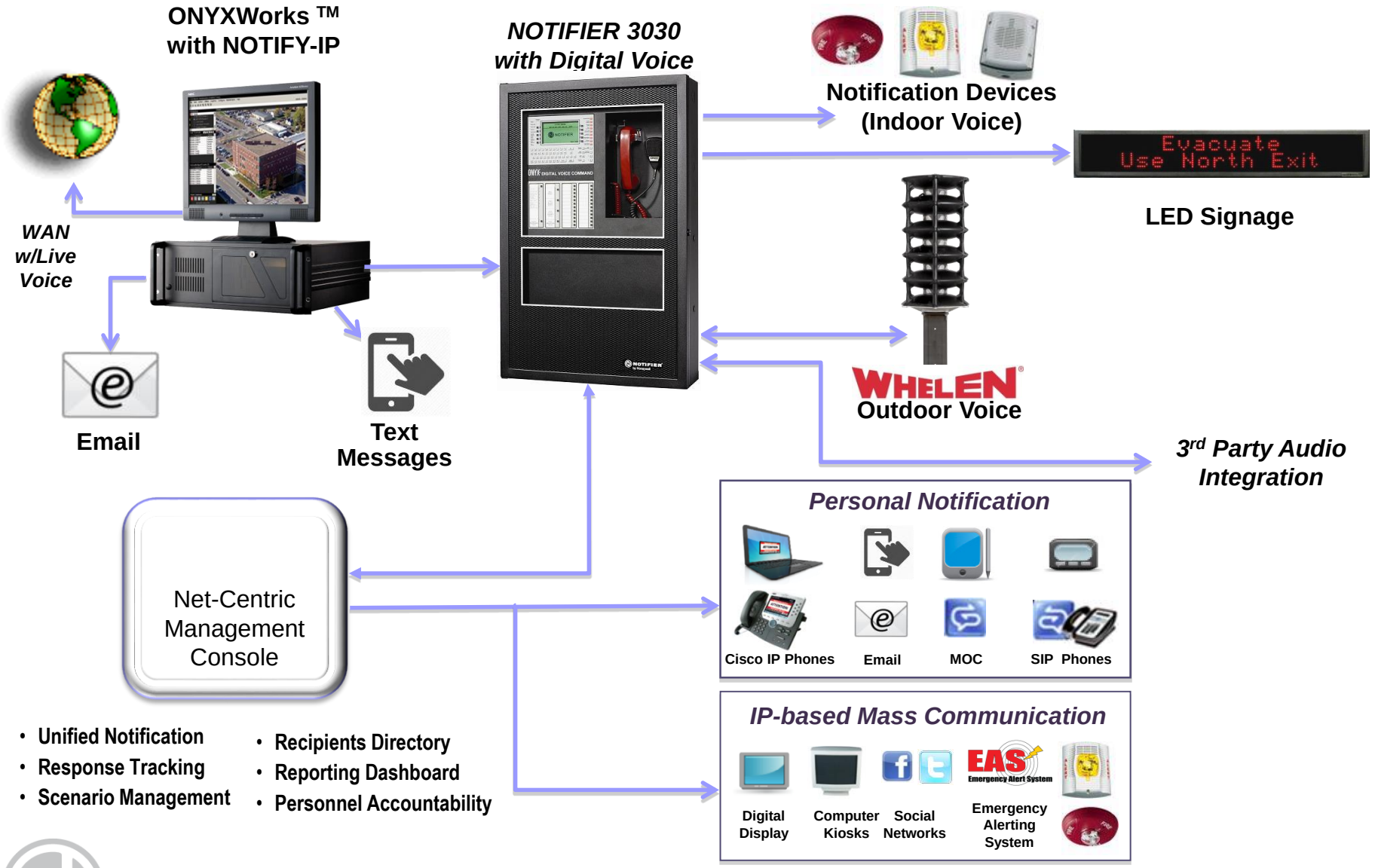
*With BDA

DS-DB Series Products

- DS-DB two DAL addresses
  - Each DS-DB can be fed with up to four DS-AMPs
- Up to 16 DS-DB
  - Up to 64 DS-AMPs
- 64 x 125 (watts @ 25v)
  - Max 8,000 watts
- 64 x 100 (watts @ *70v)
  - Max 6,400

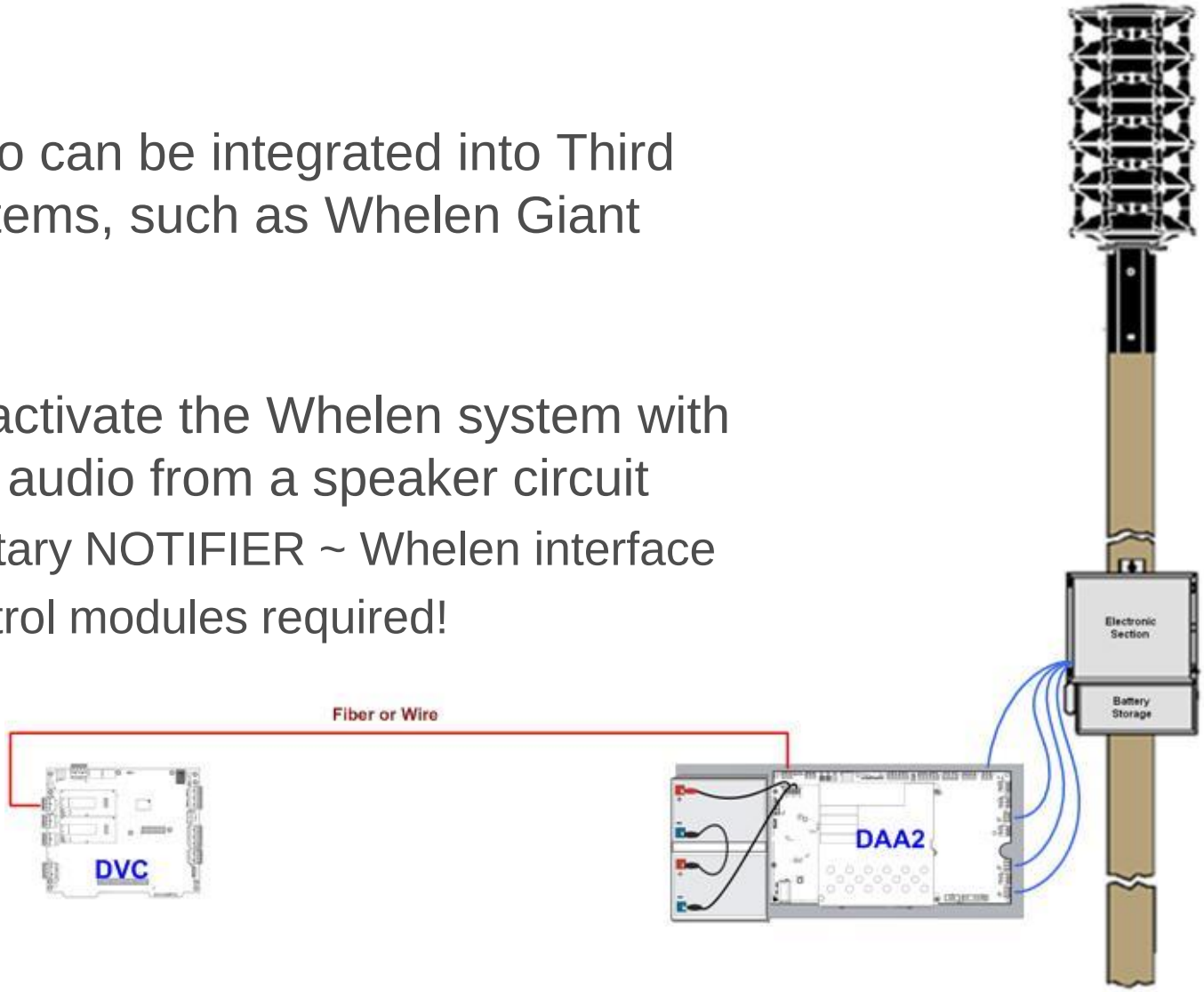
*Requires DS-XF70V

Fire Alarm & Emergency Communication Systems



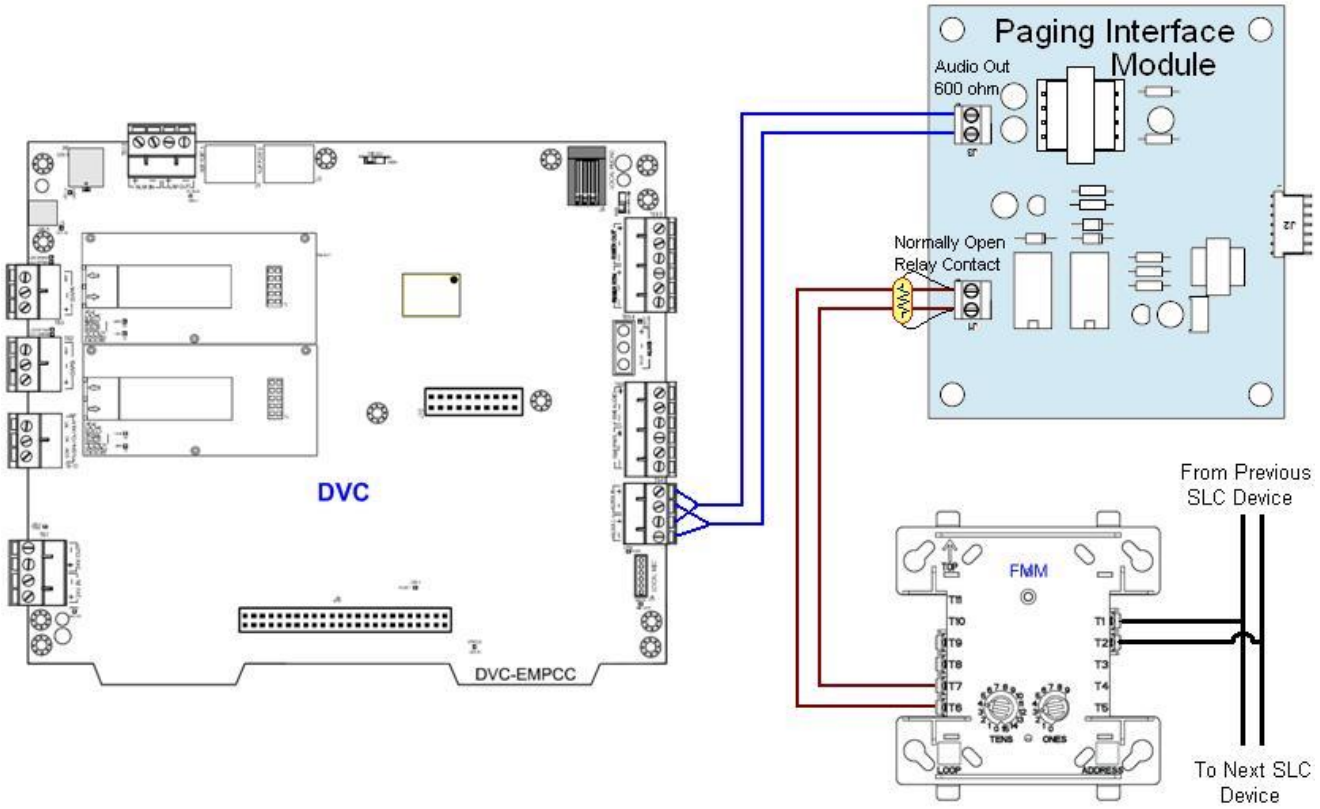
Third Party Integration

- DVC audio can be integrated into Third Party systems, such as Whelen Giant Voice
- Ability to activate the Whelen system with high level audio from a speaker circuit
  - Proprietary NOTIFIER ~ Whelen interface
  - No control modules required!



DVC Third Party Integration

- Third Party Audio, such as Whelen Giant Voice, can be easily integrated into the DVC



Digital Intelligent Signage

Value

- Pre-programmed or customizable emergency messages – examples:
  - Security Breach Reported
  - Lock Down
  - All Clear
- Emergency messages displayed throughout a facility for company personnel or visitors

Solution

- Supplements emergency voice messaging with visual signage
- Fully integrated and supervised by ONYX panels and ONYXWorks
- UL-listed LED signs and ONYX gateway

Effective solution for the hearing impaired/high ambient noise areas

LEDSIGN-GW: ONYX integration gateway

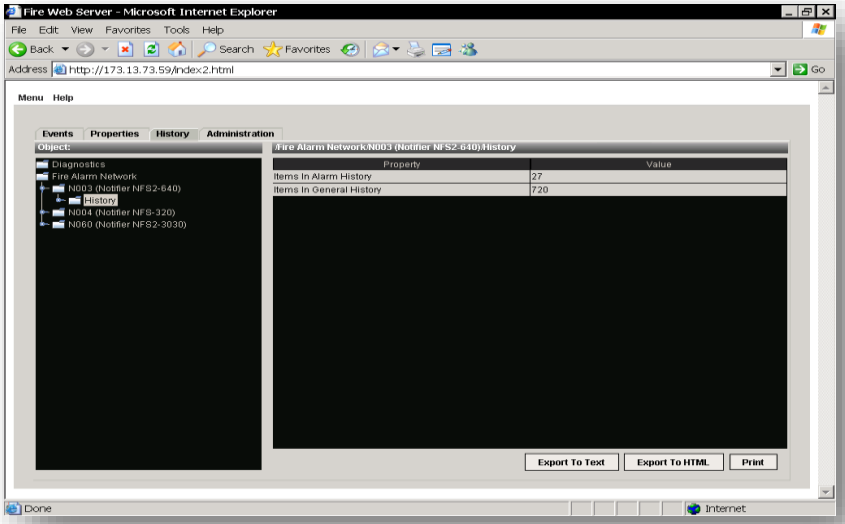
- Up to10 LED signs per gateway
- Each sign can display a unique message based on programming
- Encrypted communications to the sign
- Bright LEDs with wide viewing angle



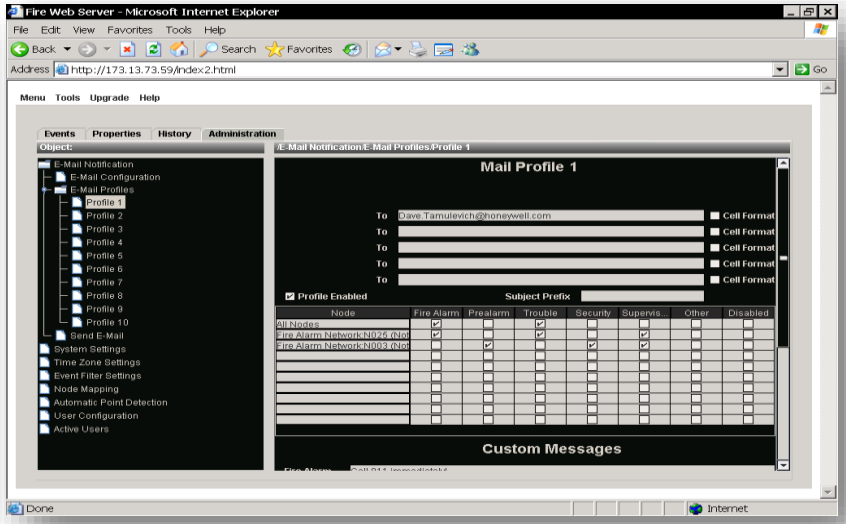


NOTIFIER Web Server Gateway (NWS-3)

- Access FACP status remotely over the internet or intranet
- Send automatic emails or text messages (up to 50)



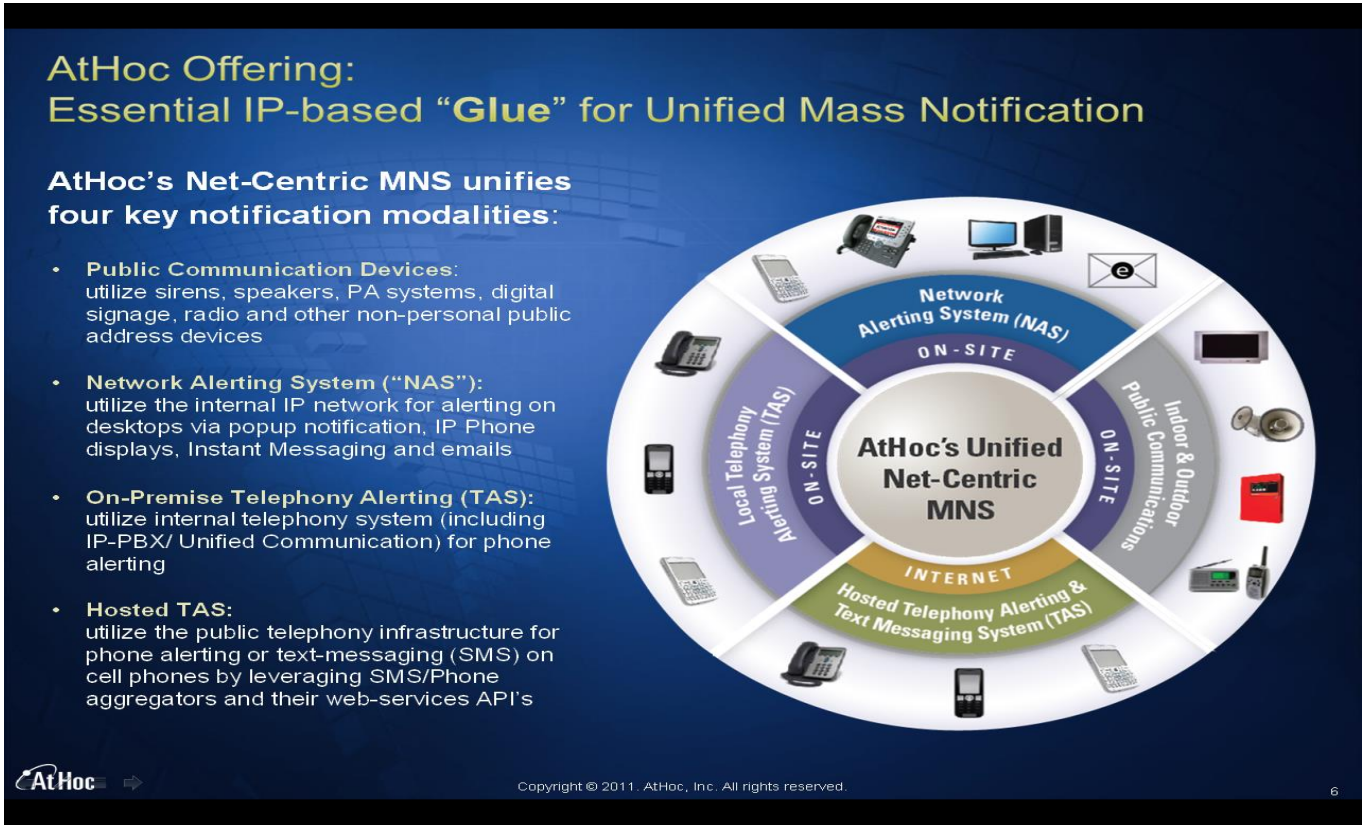
View History Remotely



Email Profile Configurations

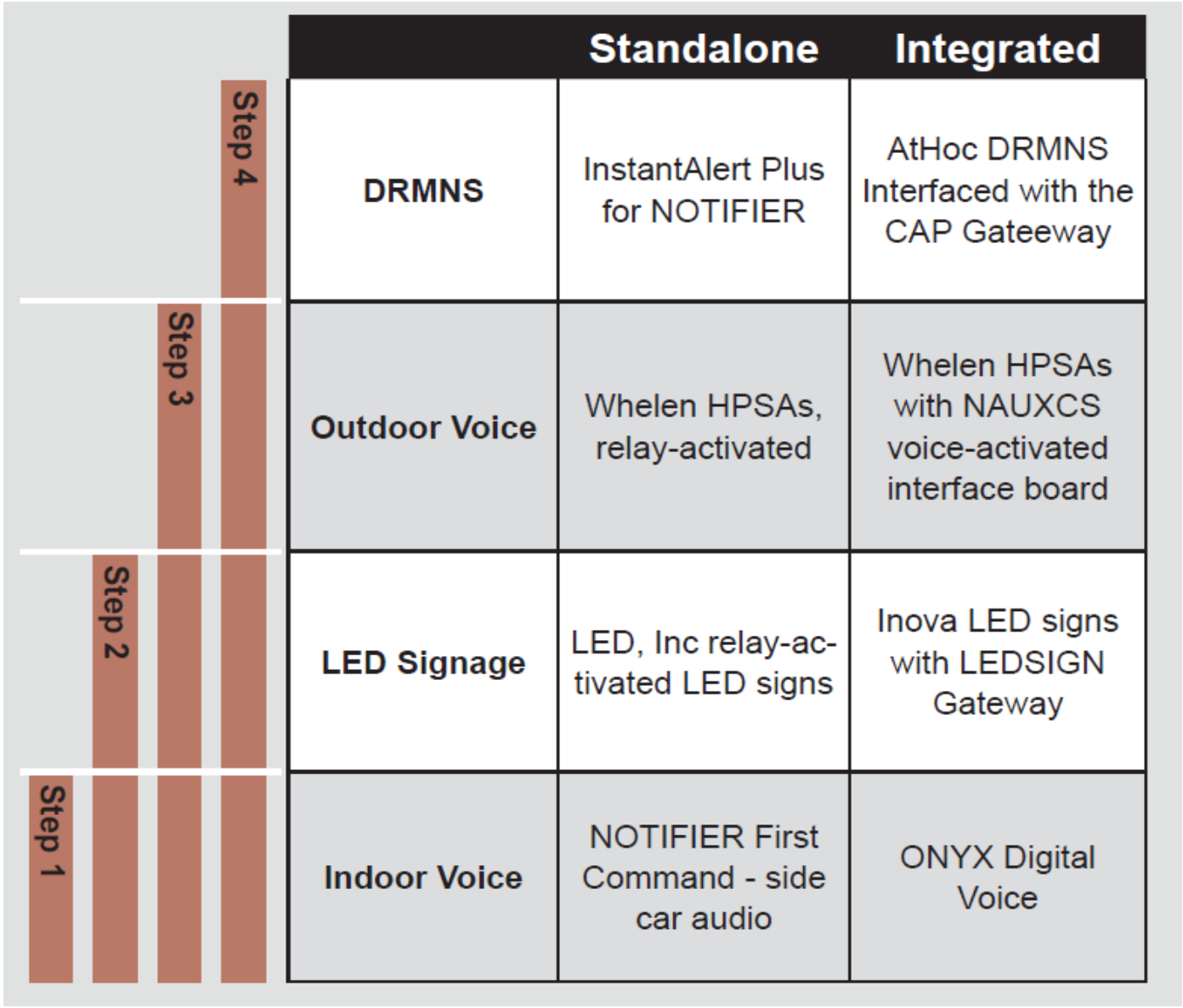
NOTIFIER ECS: Distributed Messaging

- At-Hoc
  - Integrates with NOTIFIER via the CAP-GW



Progression of effectiveness in ECS technology

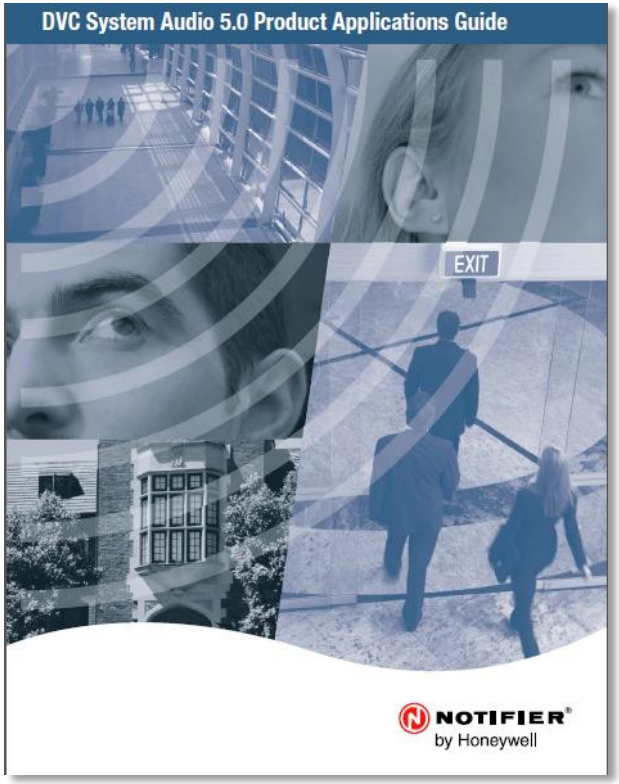
Ranging from indoor voice systems to full DRMNS functionality

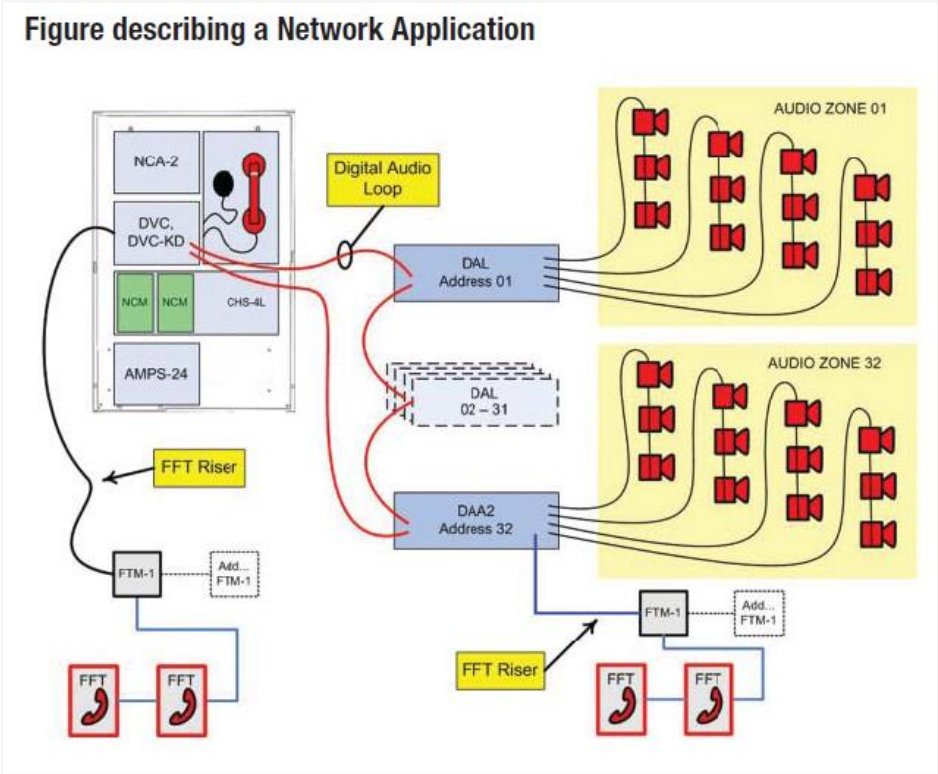


	Standalone	Integrated
DRMNS	InstantAlert Plus for NOTIFIER	AtHoc DRMNS Interfaced with the CAP Gateeway
Outdoor Voice	Whelen HPSAs, relay-activated	Whelen HPSAs with NAUXCS voice-activated interface board
LED Signage	LED, Inc relay-activated LED signs	Inova LED signs with LEDSIGN Gateway
Indoor Voice	NOTIFIER First Command - side car audio	ONYX Digital Voice

Voice/ECS Support Resources

- DVC Application Guide
  - Great resource for a better understanding of the DVC and associated digital audio loop devices
    - Applications, Configurations and Programming guidance





Voice/ECS Support Resources

- Your local NOTIFIER RSM (add a funny pic for these guys)

- Dan Corbett (add my pic)
  - Sr. Sales Applications Specialist
  - Dan.Corbett@Honeywell.com
  - ONYX Series, DVC, Advanced Detection

- Dave Tamulevich (add DTs pic)
  - Sr. Sales Applications Specialist
  - David.tamulevich@Honeywell.com
  - ONYXWorks, FirstVision, Gateways



- **Leverage STRENGTH of BRAND**
  - Recognized, Specified, Quality, Partner Network
- **Leverage STRENGTH of PARTNERS**
  - Global Reach, Local Knowledge, Full Service
- **Leverage STRENGTH of PRODUCTS**
  - Backwards Compatibility, Addressable Devices, Networking and ECS

Sell and Win with NOTIFIER

Be sure to download the NOTIFIER Annual Leadership Conference 2017 Event App

- Keep Track of Your Personalized Agenda and Event Schedule
- Participate in Polling and Conference Trivia
- Stay Up to Date with the Activity Feed
- View Presenter Lists, Documents, Photos, and More!

Visit the App Help Desk by the NOTIFIER Registration



THANK YOU

NOTIFIER®
by Honeywell