

# COMPLEXITY SIMPLIFIED



# About **SIMPLEX**

Founded in 1894, Simplex is the world's premiere manufacturer of fire and security products with more than 10 decades of history. During January 2001, it was merged with Tyco to become a member of Tyco International Ltd. Tyco International Ltd. is a multinational cooperation that operates in a variety of businesses.

As a core operating sector of Tyco International Ltd., Simplex has achieved their goal in helping Mainland China, Taiwan, Hong Kong, India, Malaysia, Singapore, Indonesia, Vietnam, Thailand, South Korea, Philippines, Japan and many other countries and regions with their fire safety and fire systems. Thousands of our engineers provide system planning and secondary design, on-site installation instruction, system debug

and other pre-sales and after-sales services for different buildings and various application requirements in more than 90 countries around the world, in order to meet all of the customers' needs.

While delivering state-of-the-art Life Safety Solutions, we always keep our sights set on providing easy migration paths to future technologies. We develop our products to be backward/forward compatible, helping to ensure a long life for our solutions and products, providing on-going operational efficiency and investment protection for our customers.

Everything we do revolves around an approach to life safety that aligns today's thinking with the forethought and flexibility needed for the future.

## A NEW WAY TO MANAGE YOUR SAFETY AND YOUR FUTURE

### Master Bay

- System Power Supply (SPS) with onboard IDNet channel, 3 NAC's and Aux Power.
- CPU, Network Card, Media Cards, RS232

### Expansion Bays

- Dual redundant CPU option for critical applications such as Fire & Gas Systems
- Audio
- Firefighter phones
- Relays Cards, Zone Cards, IDNet Cards
- LED / Switch modules
- TCP/IP Physical bridge
- Single Fibre Modems
- Expansion Power Supplies (XPS)
- TrueAlert Addressable Power Supplies

- LIFECYCLE investment protection
- MIGRATION PATH to tomorrow's technology
- MISSION protection, risk avoidance
- INTERNET connectivity
- SCALABLE, OPEN SYSTEMS environment
- INFORMATION MANAGEMENT
- INTELLIGENT devices
- INTUITIVE user interface



## KEY FEATURES

- UL / FM Approved
- Universal Platform – Small to large systems
- New processor with on board IP Network Capability and compact flash
- Future Proof Modular Design
- Backward compatibility and upgrade path to new technologies to protect customer's investment
- Integrated Voice Alarm & Fire Fighter Phones
- Agency Listed Non Alarm Audio (Paging and Background Music)
- Spoken Walk Test
- Voice Coding / Message Splicing
- Smoke Management & Control
- High Level Networking, Multiple Topologies and Connectivity Options
- Third Party Open Protocol Interfaces such as BACNet, Modbus and OPC Server
- Graphic command centers with client server and dual redundant configurations.
- SafeLINC Fire Panel Internet Interface
- UL / FM Listed for Suppression Release
- Master Clock Interface
- Tyco CCure Security Access Control Intergration
- TrueInsight Remote Service

## LISTING

- UL864 9th Edition, ULC and FM
- CCCF – China
- BSMI – Taiwan
- HKFSD – Hong Kong
- BOMBA – Malaysia
- KOFFEIC – Korea

## 4100 ES EMERGENCY VOICE/ ALARM

### 4100ES Audio Systems

4100ES Audio Systems provide voice communication, alarm tones, and/or digitally pre-recorded voice messages to alert occupants of fire or other emergency situations. Evacuation signalling may be automatically generated via alarm initiated event programs or by fire fighting personnel using the operator controls.

### Firefighter Telephone Systems:

Firefighter telephone systems provide two-way communications for facilities where radio communications may not be available or are unreliable. They are typically used during active fire fighting conditions, during a fire alarm investigation, or during fire alarm system

inspection and test. Master telephone can simultaneously talk with up to 6 remote telephones and can be connected as an audio input for broadcast messages.

Degraded mode allows remote telephones to remain connected to each other in the event of a communications loss.

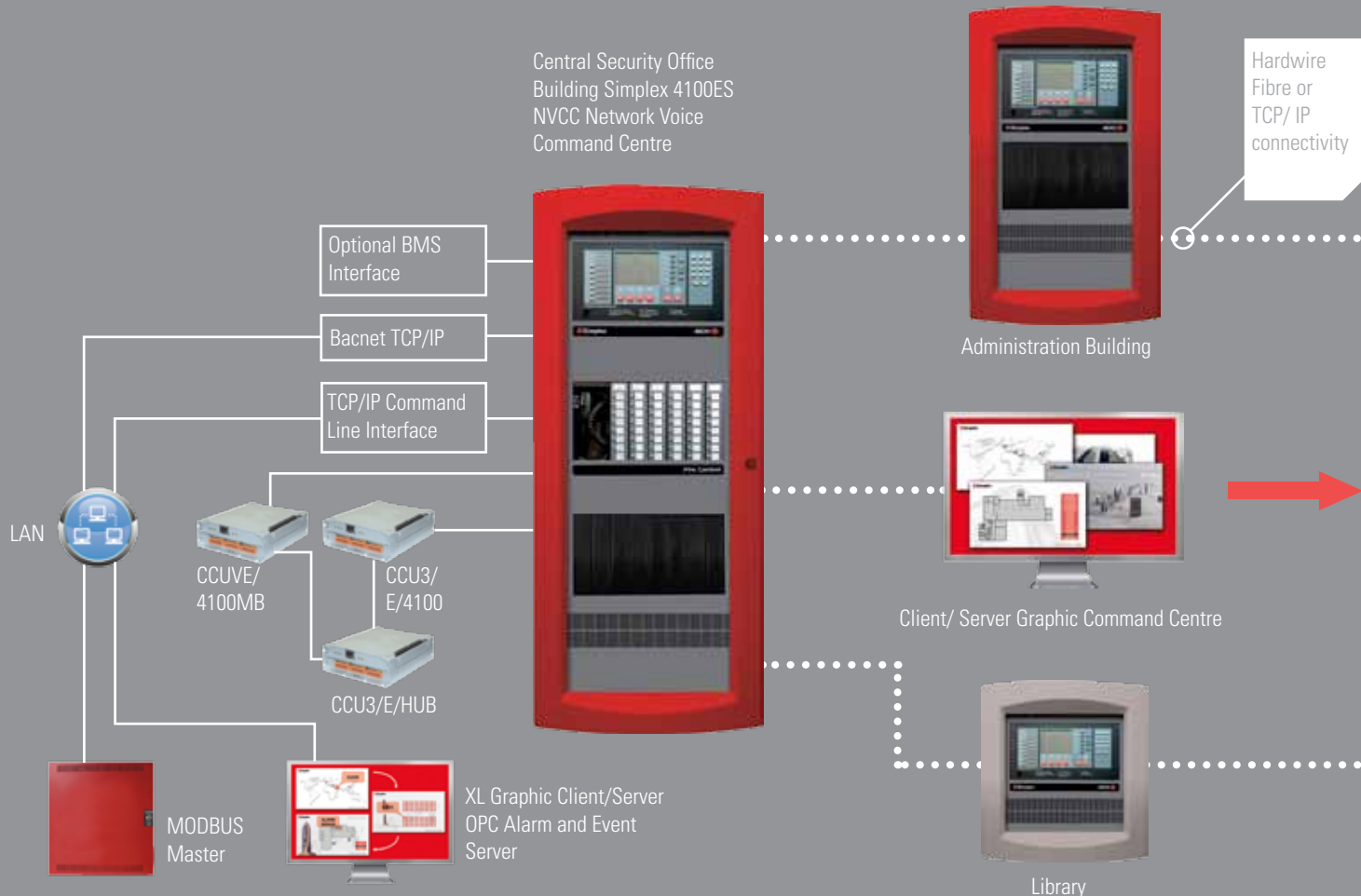
### Emergency Voice/Alarm Communications Provide:

- Alarm/evacuation signal generation with multiple built-in tones.
- Standard or customised digital message storage and message generation.
- Automatic or manual operation.
- Mass Notification operation.

- Analogue audio systems provide dual channel operation.
- Digital audio systems provide multiple channels over a single wire pair.
- Supervised remote microphone inputs.
- Spoken voice coding from the digital message player.
- Multiple digitally recorded human voice messages.
- Spoken WALKTEST system testing.
- Separate evacuation, drill, and optional "All Clear" voice messages and tones.
- Ready-to-talk microphone indicator on front panel audio control module.
- Local panel speaker for tone/message broadcast verification.
- MINIPLEX Voice

*Integrated Voice Alarm Systems provide Clear Concise Instructions for safe and effective alert and evacuation procedures including unobtrusive maintenance and testing.*

## Campus Style Network Multiple Connectivity Options



## SIMPLEX FIRE ALARM NETWORKS:

Simplex Fire Alarm Networks communicate information among distributed Simplex fire alarm control panels. Systems may be composed of similar capability panels sharing information, or specific nodes may be added to perform dedicated network functions. Illustrations on the following pages provide a summary of a variety of fire alarm Network applications, multiple topologies and connectivity options.

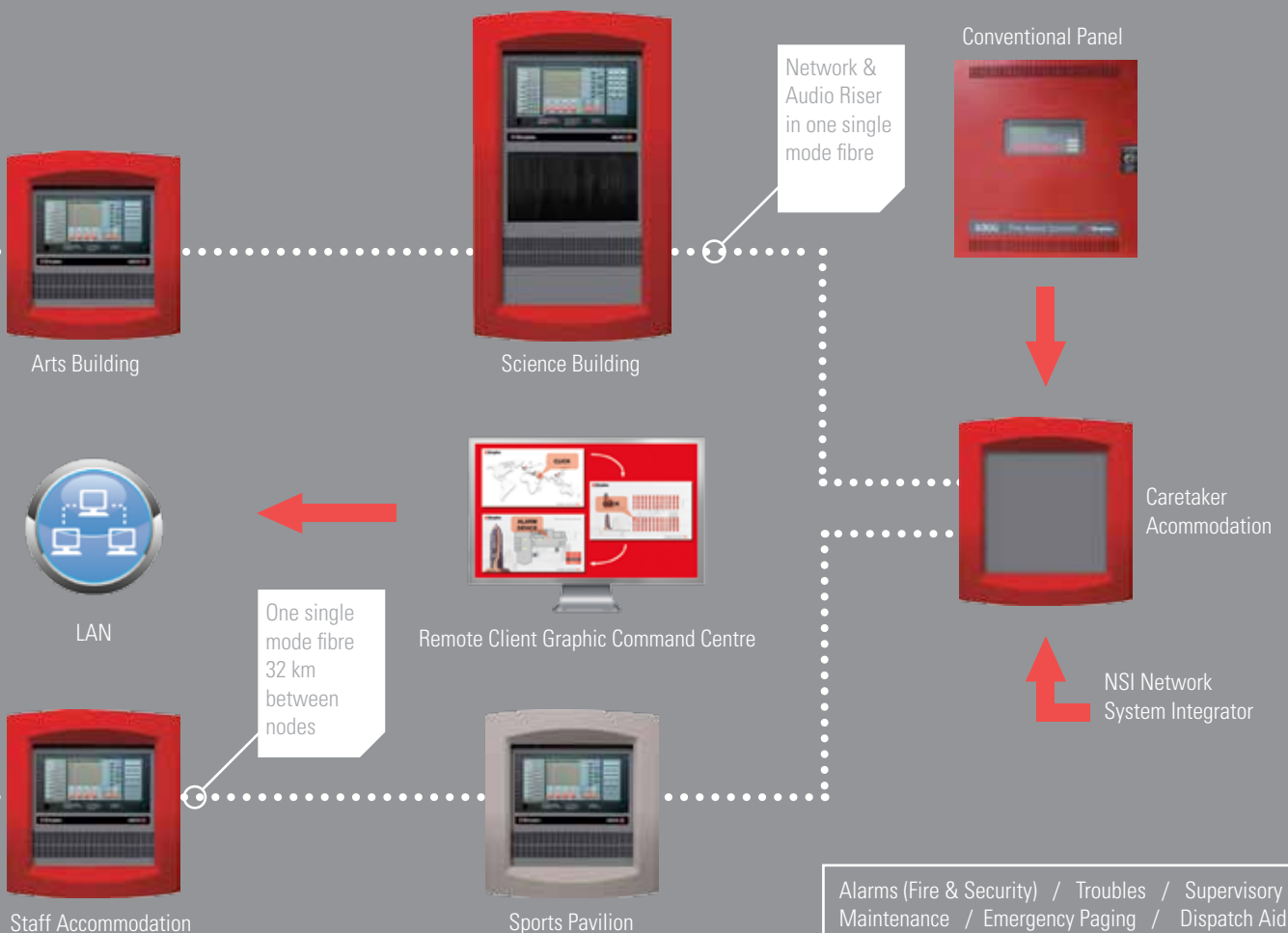
For non-Simplex panels, a Network System Integrator can be used to connect equipment to the Network using optically isolated inputs and relay contact outputs.

Network communications among system fire alarm control panels provides:

- Support for Network Emergency voice broadcasts and Centralised Command Center operations
- Multiple Network Loops for campus and other high panel quantity applications
- Network-wide initiation of alarm silence, acknowledge, and reset; and investigation of status and details of system points and point lists
- Distributed system operation to ensure excellent survivability; during a communications fault condition, Network nodes remaining

connected will regroup and continue communicating

- Flexible Network Annunciator options such as XLGraphics, TrueSite Workstations, Network Display Units (NDU) and NDUs with VCC (Voice Command Center)
- Use of InfoAlarm Command Center equipped nodes to provide increased network information display capability
- Network level command and control provides manual point control for on/off or disable/enable, as well as gathering specific point detail



## BOOST VALUE AND PERFORMANCE WITH ADVANCED PERIPHERALS

Our advanced options and peripherals are designed to ensure compatibility and to work seamlessly with all our fire alarms platforms. These devices and peripherals can help you meet applicable codes and seamlessly enhance system configuration as needs change. Modular design and consistent user interfaces are built into every system and peripherals from Simplex, allowing you to leverage your investment far into the future.



### TrueAlarm Addressable/Analog Smoke And Heat Sensors

The First Choice In Intelligent Sensing Technology

- Addressable/analog for full interactive communications
- Intelligent sensing for reduced nuisance alarms
- Lower installation and expansion costs
- Automatic adjustment for dirt, dust, humidity and aging- our sensors even tell you when they need to be cleaned
- Four available options: Photo, Ion, Heat or Multi-sensor Photo/Heat combining smoke/heat in a single base that's easy to wire and allows each sensor to be programmed individually

for a different alarm response (heat or smoke), or combines for faster response to fast-flaming fires.

#### WHEN TO CHOOSE

- For companies seeking the lowest possible installations and maintenance costs
- For operations requiring detailed maintenance and alarm reporting to the device level



### TrueAlarm Non-Addressable Smoke and Heat Detectors

Advanced Technology In A Non-Addressable Detector

- Photogenic detector incorporates an onboard microprocessor for auto drift compensation
- Self restoring heat detectors leverage fast-response thermistor technology
- Nuisance alarm prevention

▪ Built-in sensitivity testing to reduce maintenance cost

#### WHEN TO CHOOSE

- Ideal solution for non-addressable and legacy fire alarm environments, small facilities



### TrueAlert Addressable Notification Appliances

Intelligent Fire Notification For The 21st Century

- Global addressability and synchronisation supporting full interactive communications
- Lowest installed cost in the industry
- Smart system with TrueAlert Isolators automatically identifies and isolates its own short circuits faults.
- Low retrofit costs – you can use existing installed wiring when upgrading TrueAlert appliances

#### WHEN TO CHOOSE

- Perfect for new constructions, retrofits or expansion
- Ideal in facilities where disrupting operations testing is acceptable
- Mass notification control



### TrueAlert Non-Addressable Multi-candela Notifications Appliance

Exceptional Performance With Fast, Convenient Installation

- Installs quickly and easily, features lower current draw
- SmartSync feature allows individual control of audible and visible appliances on a single non-addressable circuit, reducing equipment and installation costs

#### WHEN TO CHOOSE

- For any fire system with basic audible/visible evacuation needs
- Flexibility to adapt to occupancy changes



### Simplex TrueSite Information Management Systems

Vital Management Information Right At Your Fingertips

- Family of Windows-based agency-listed management solutions
- Provides state-of-the-art 4100ES network annunciation, configuration and control consumption reporting

#### AVAILABLE FEATURES

- Remote Clients – agency-listed primary operator management workstation with LAN/WAN remote terminals
- Universal panel Interface – agency-listed interface links existing non-Simplex panels to IMS

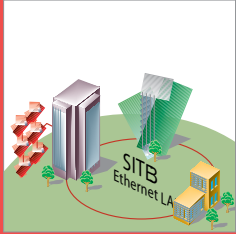
#### WHEN TO CHOOSE

- A “must have” management tool for companies that have their own fire response team or that manage their own 4100ES fire alarm networks
- Excellent for large-scale network environments, such as multi-building campuses and towers
- One work station for all fire alarms system



## THE POWER OF ADDRESSABILITY

- Reduces maintenance and testing costs
- Lowering installation costs
- Pinpoints event locations for instant response
- Reduces nuisance alarms



### Simplex SafeLINC

The First Agency Listed Email/Internet Solution To Access Fire Detection Systems

- An innovative solution for interfacing 4100U Universal Fire Alarm Platforms to the owner's secured Internet network
- View fire panel details remotely, saving time and labour
- Agency-listed interface to local networks
- Email notification and periodic reports

#### WHEN TO CHOOSE

- For facilities that require economical fire systems remote access



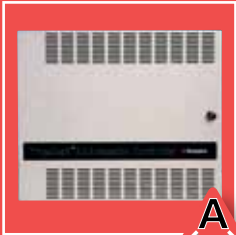
### IDNet Devices

Intelligent Devices For Easy Manageability, Lower Operational Costs

- Family of robust addressable detection and control devices – pull stations, monitors and control devices, heat detectors, smoke detectors and more
- Provides interfaces to other systems, such as sprinklers or HVAC, for facility-wide monitoring and control
- Converts non-addressable devices into addressable functionality
- Provides isolators for higher system and network reliability

#### WHEN TO CHOOSE

- Ideal for new construction, retrofits or expansion



### Addressable and Non-addressable 4009 Notification Appliance Circuit Extenders (NAC)

Intelligently Expands Notification Capacity Of Any Fire Alarm System

- Family of "smart" extenders – an excellent low-cost option for expanding notification for both addressable and non-addressable systems
- For non-addressable systems: 4009 IDNet Notification Appliance Circuit Extender

#### WHEN TO CHOOSE

- Provides and enhances troubleshooting diagnostics and options for monitoring and notification of remote buildings
- For addressable systems: 4009 TrueAlert Addressable Controller
- Ideal for new construction, upgrades and facilities that require compliance with ADA



### Simplex TrueAlert Emergency Visual Messaging Display

First-Ever UL-listed Text Message Appliance

- Manage emergency events with new technology for communicating critical information via text messaging on visual display units
- Communicate a clear, concise message that directs people where to go and what to do
- Communicate general, non-emergency messages during non-alarm periods

#### WHEN TO CHOOSE

- Ideal for campus environments, schools, hospitals, factories, train stations, airport terminal, office buildings and other locations to notify and instruct people in the event of an emergency



### TrueAlert Amber Alert Notification Appliance

Advanced Emergency Communications Solution

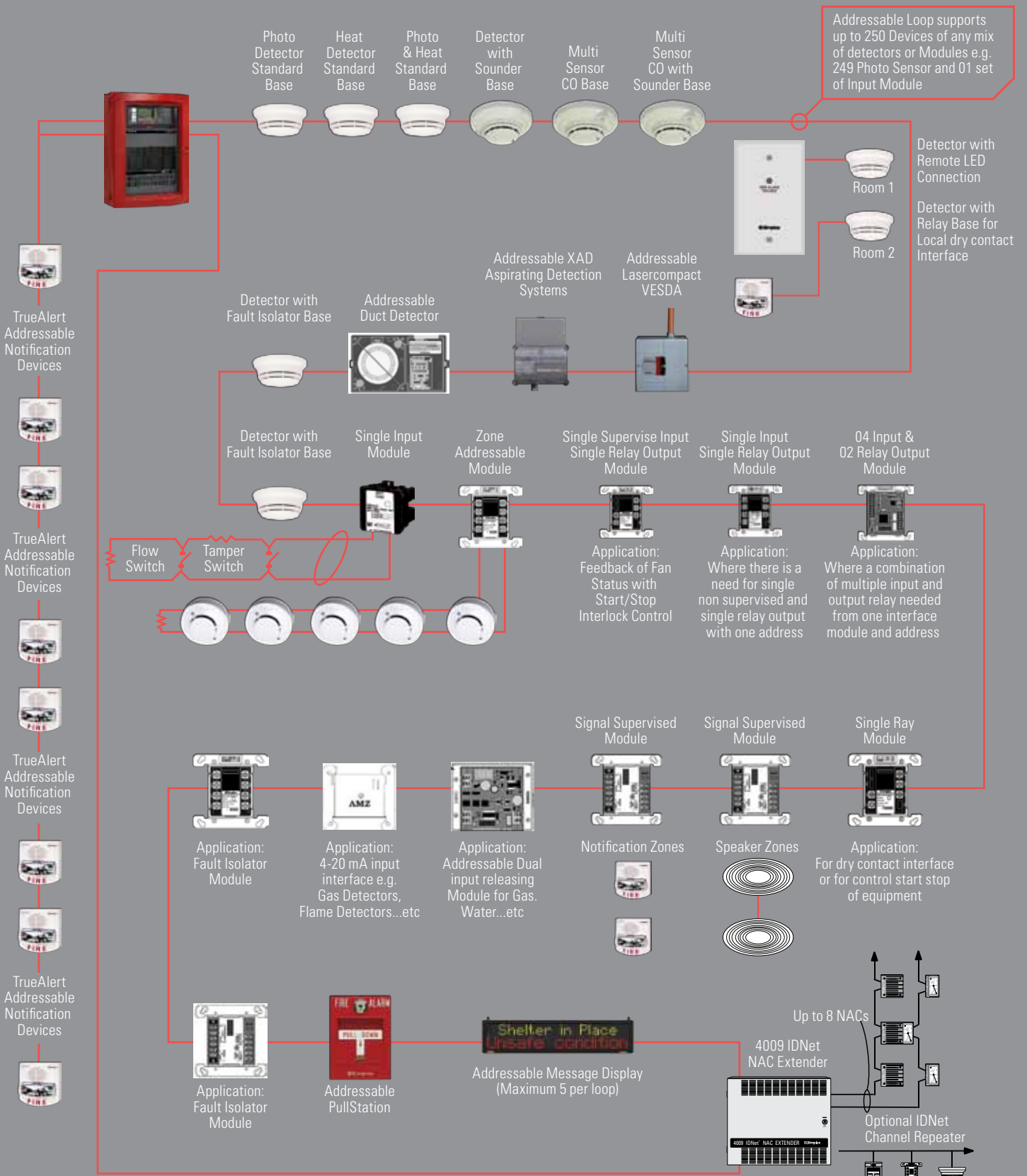
- This non-fire emergency device is differentiated from a fire emergency device by the amber lens and "ALERT" lettering
- Easy to modify custom programming activates amber alert strobes or fire strobes; strobes are NOT activated simultaneously
- Control candela settings through software or hardware
- Four candela settings: 15, 30, 75, 110

- Available in addressable and non-addressable versions

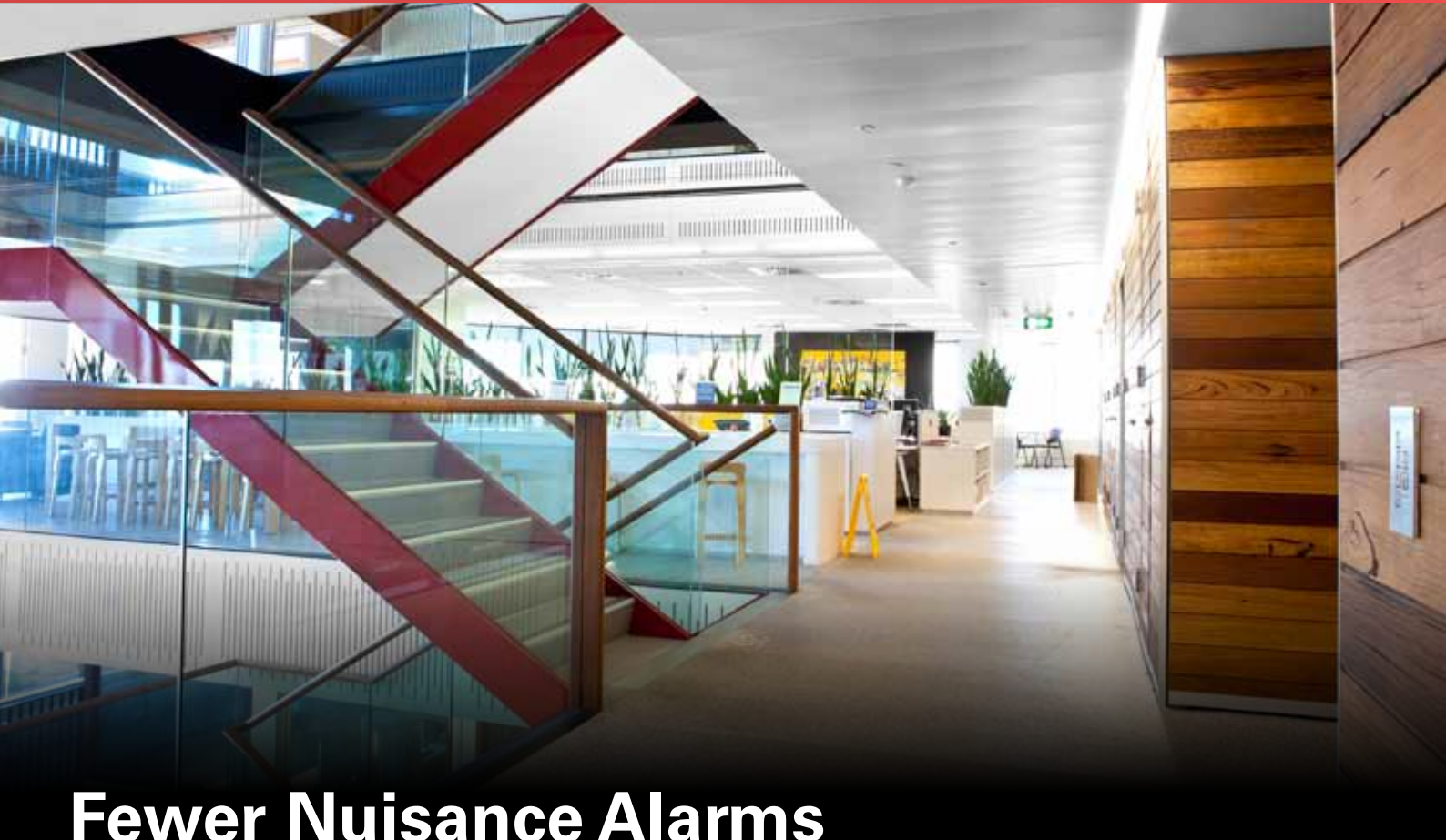
#### WHEN TO CHOOSE

- Ideal for military facilities, campus environments, schools, hospitals and other locations with emergency communication systems

# FIRE ALARM SYSTEMS APPLICATIONS







# Fewer Nuisance Alarms Greater Peace Of Mind

## The challenge

- Minimise danger from smoke, fire, water and other potential hazards
- Prevent costly property damage
- Reduce nuisance alarms
- Lower maintenance costs

The first job of any sensor is to protect your operation. The second is to reduce nuisance alarms. Because these alarms are more than just a nuisance. They create costly downtime, disrupt occupants and create unnecessary danger and confusion. Which is why you need TrueAlarm.

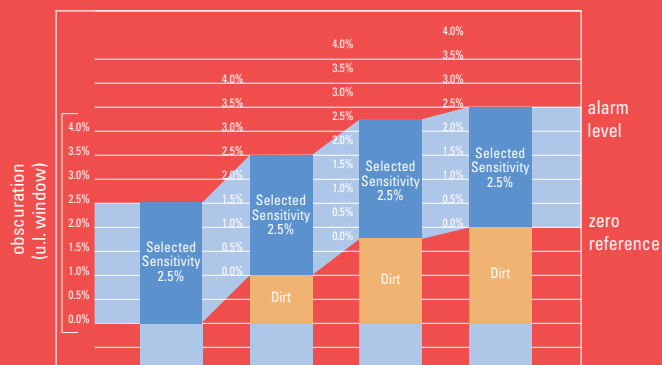
TrueAlarm's patented technology addresses the major causes of nuisance alarms – dirty and overly sensitive sensors fluctuating environmental conditions – with a host of powerful, innovative features:

**Drift compensation** – Sensors evaluate environmental data and compensate for contamination to maintain detector sensitivity and nuisance alarm immunity.

**Automatic sensor cleaning indication** – Warns system operators that a sensor is dirty before its drift compensation level has been reached.

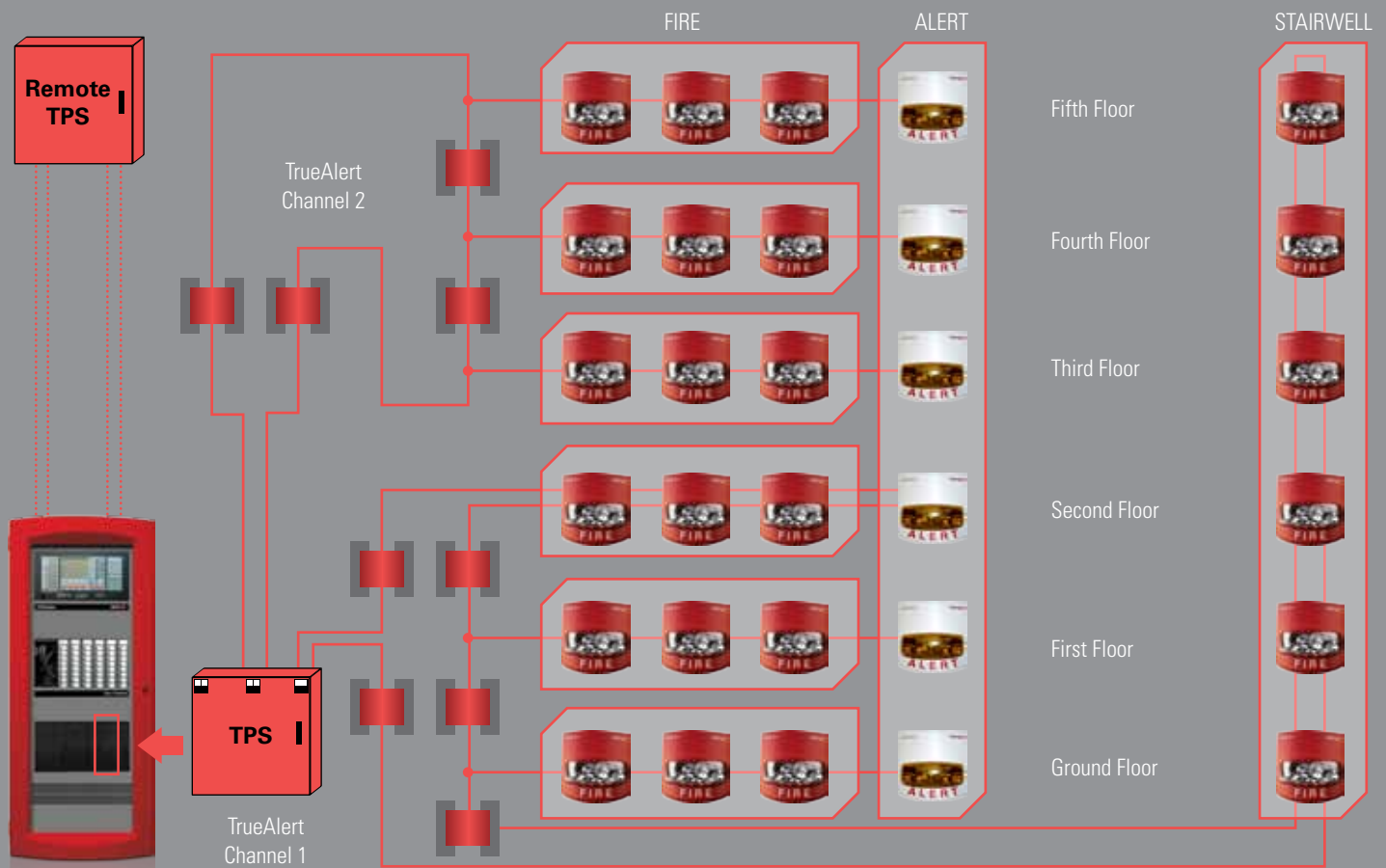
**Seven UL-approved sensitivity levels** – Each sensor can be set at a maximum sensitivity for the environment it protects, right down to 0.2%.

**Peak value logging** – Provides an historical accounting of how close its sensors have come to its alarm point, allowing you to more accurately set your system for maximum sensitivity without triggering nuisance alarms.



TrueAlarm sensors are engineered to maintain their present levels of sensitivity. As dirt accumulates, the sensors self-adjust, notifying operators of Almost Dirty, Dirty and Excessively Dirty conditions long before they trigger a nuisance alarm. This lets you schedule maintenance on both Dirty and Almost-Dirty sensors at the same time, minimising your facility costs.

## True Alert Notification



When controlled from a Simplex 4100ES control panels with TPS, additional features are available such as software selection strobe intensity, detailed reports of actual appliance intensity selection, TrueNAC voltage drop diagnostics and additional setup and test diagnostics.

### TrueAlert Addressable Advantage

TrueAlert Addressable Operation provides separate audible and visible appliance control functions using a single two-wire circuit that also confirms connection to the individual notification appliance's electronic circuit. This operation increases circuit supervision integrity by providing supervision beyond the appliance wiring connections.

### Opportunities for Reducing Installation and Testing Time

Separate controls carried on the same two-wire SLC can significantly reduce installation time and expense for both retrofit and new construction. When Class B (Style 4) wiring is used, wiring can be T-tapped, allowing even more savings in distance, wire, junction boxes, and overall installation efficiency. The extensive diagnostic features available provide improved installation efficiency.

# Simplex TrueSite Workstation

Next-generation platform manages an entire fire and life safety network from a single location



## Enhanced Protection In Networked Environments

In today's multi-building, high-rise and campus environments, life safety is a top-of-mind concern. The protection of people, property and assets can hinge on the ability to quickly respond to an emergency and effectively manage system information from a central command center.

With these challenges in mind, Simplex introduces the Simplex TrueSite Workstation – an advance, next-generation life-safety information management system developed specifically for large, network installations. The TrueSite system can provide an outstanding life-safety information management solution in commercial facilities, hospitals, colleges, airports, and other demanding environments.

## A Powerful Platform For Centralised Management

When it comes to managing the wide array of information that drives a large fire alarm network, the TrueSite systems stands out for its power, flexibility and ease of use. A PC-based graphical command center that runs on Microsoft Windows, WP, the TrueSite station can seamlessly accept and process information from literally thousands of detectors, notification appliance and other network devices, the system's power is evident in its ability to:

- Monitor and control up to 50,000 fire alarm devices
- Support four network loops and as many as 396 panels
- Monitor any brand of control panel using agency-listed digital alarm communicators
- Store historical data for up to 500,000 events

## Fast Emergency Response And Notification

The TrueSite station has been designed to support fast, efficient response to emergency situations. In an emergency, TrueSite receives incoming data from system devices and then automatically provides operators with color-coded action messages, detailed, easy-to-read site and floor plans, and step-by-step instructions on how to respond to the specific condition.

The TrueSite workstation supports dual screens monitoring and dockable windows. These features allow simultaneous display of graphical and textual alarm data, giving system operators added ability to quickly assess system activity and respond rapidly and accurately to an emergency.

## Product Benefits:

- Strengthen protection of life and property through centralised life safety information management
- Help accelerate emergency response and control training costs with intuitive graphical interface and event-specific operator instructions
- Improve operational efficiency through quick access to information and customisable menus
- Protect your investment and prepare for the future with forward-backward compatibility

## TrueSite Incident Commander: TrueSite Workstation Power built into your Fire Alarm Panel

TrueSite Incident Commander takes all of the leading edge features of a TrueSite Workstation and delivers them in a space-saving package that mounts in a Simplex 4100ES fire alarm control panel cabinet.

## Ready for today...and tomorrow

Keeping with our commitment to stand by our customers and maximise the value of their life safety investments, TrueSite can meet today's needs and carry your system into the future. Our earlier generation GCC and IMS workstations can be easily migrated to TrueSite. What's more, TrueSite features forward - backward compatibility with Simplex products, and has been specifically designed to facilitate system expansions and upgrades. Not only does this bring a high degree of expandability to the fire alarm network, it also provides the framework to help meet emerging life safety and mass notification needs.



The TrueSite system is further distinguished by its exceptional survivability. Unlike some other systems, the TrueSite workstation operates as an actual node on the network. This architecture has an advantage of providing true peer-to-peer linkage with all panels on the network, thereby fortifying the TrueSite system's ability to continue operations even if a catastrophic event cripples other parts of the network.

High-resolution color graphics with newly enhanced color graphical user interface features, the TrueSite workstation provides touch-screen or mouse-driven access to all system control features. It can import graphic building site plans and graphically display fire, emergency, supervisory, and trouble conditions occurring along the network. Higher screen resolutions provide additional space for detailed graphics. Plus, pan and zoom technology makes it easier to zoom in on a specific point of interest, helping to meet unique customer applications and fulfill market-specific requirements.



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