Intelligent Fire Detection & Alarm and Mass Notification System

www.mircom.com/FleX-Net
The Most Versatile and Powerful Systems in the Industry

FleX-Net™ is a ‘next generation’ modular network system that is designed for the most demanding fire protection and emergency communications applications. FleX-Net™ introduces an impressive new range of system configurations, including a wide array of cabinets and sizes for control and annunciation requirements.
Complete Building System Integration

FleX-Net™ is built to meet the latest building code requirements and offers an extensive range of panels, modules and devices for any retrofit upgrade or new construction project.

- COMMERCIAL TOWERS
- HOSPITALS
- UNIVERSITY / CORPORATE CAMPUSES
- LARGE HOTELS
- LARGE SHOPPING MALLS
- MILITARY FACILITIES
- HIGH-RISE RESIDENTIAL

FleX-Net™ not only integrates all sub-systems, including fire detection & alarm, audio/voice evacuation and HVAC/damper control, it is also designed with built-in BACnet support for seamless integration with Building Management Systems (BMS). FleX-Net™ eliminates the need for expensive adder modules, required by other systems, and supports both binary and analog input/output devices.
ENHANCED INTELLIGENT NETWORK MONITORING AND CONTROL

Unparalleled Modular System Design

FleX-Net’s modular design provides almost limitless freedom to configure local, group and global control and annunciation where it is needed – including the ability to configure up to 7 LCD display/control chassis in a single node.

FleX-Net’s unique system architecture provides market-leading performance and economy in the widest range of different system configurations:

- Stand alone addressable fire detection system
- Stand alone addressable fire detection and audio system
- Public Address/Voice Address (PAVA) system
- Network audio system
- Network fire detection and audio system

Designed to Meet the Latest Codes and Standards

FleX-Net™ complies with the latest fire codes and standards, for control units (listed with UL 864, 9th Edition and ULC SS27) and installation (NFPA, ULC SS24). FM certification is pending.
In addition to the widest selection of LED and LCD annunciators, FleX-Net™ is also supported by Open Graphic Navigator™, an advanced 3D graphic software system that takes system monitoring and emergency response to a whole new level.

**Enhanced Life and Property Protection**
- Complete flexibility to display custom floor plans and graphic symbols
- Custom event messaging

**Secure System Configuration / Maintenance**
- 3D floor plan based graphic user interface
- Import system configuration files without taking system off-line
- Easy device symbol placement on floor plans

**Advanced Monitoring and Control**
- Real time annunciation of system status
- Annunciation of up to 1000 simultaneous system events
- 500,000 event log capacity

**Fully Customized Graphics**
- Accepts any .png or .svg formatted floor plan
- Select preconfigured or import custom symbols
- ‘Point and Click’ device symbol placement
- Custom event response messages

**Intuitive User Interface**
- Color-coded event queues
- Clean, easy-to-read system status widget
- Easy to navigate facility using building and floor slider widgets
- Detailed (vector based) 3D building graphics
Meeting Emerging New Codes and Standards

Mircom’s FleX-Net™ Mass Notification System (MNS) is designed to support the newest industry requirements for mass notification. This includes the ability for responding authorities to override fire detection notifications, issue external voice announcements, and simultaneously distribute different emergency messages on any geographic scale required.

The FleX-Net™ Mass Notification System (MNS) is listed to UL2572, and meets the NFPA 72-2010, and UFC/DOD standards for emergency communications systems. FM certification is pending.

Powerful Emergency Communications

The FleX-Net™ MNS system employs the industry’s most advanced hardware and software design to provide audible and visual notification, live voice instructions and Internet based text messaging. FleX-Net™ MNS is easily integrated with other public safety systems for emergency communications to wide area networks.

Audio/MNS Features:

- Up to 63 system nodes with over 50,000 watts of power
- Storage and activation of pre-programmed intelligible voice messages
- Auxiliary inputs for general paging, background music (where permitted*), or other non-emergency functions
- One-Way and Two-Way EVACS capability
- Automatic response to MNS inputs
- Synchronized evacuation zone signaling
- Voice message priority according to risk analysis and emergency response plan
- Visible notification and strobes appliance support

* Not permitted in Canada
MASS NOTIFICATION COMMUNICATION FLOW

In-Building

Communications
- Twisted pair conductors
- Fiber optics
- Ethernet
- Cellular network
- Radio network

Wide Area Network
- Large Message Signage
- Outdoor Area Speakers
- Traffic Lights and Gates

Distributed Recipient Communications
- Telephone/Mobile Phone and Text Messaging
- Desktop/Mobile Email Notification

Intelligent Fire Detection & Alarm and Mass Notification Network
SUPERIOR PERFORMANCE FOR ALL STAKEHOLDERS – TODAY AND TOMORROW

The Mircom™ FleX-Net™ system with Mass Notification functionality was carefully designed with the specialized needs of five key stakeholder groups in mind:

**Dealers and Distributors**

**Continuity** The Mircom Group of Companies (MGC™) is North America’s largest independent fire solutions provider
- Over 20 years of experience in providing new innovation and value in fire detection
- Systems proven through an extensive portfolio of projects in over 50 countries around the world
- Regional offices in Canada, USA, India and UAE provide support throughout all phases of the project

**Reliability** Manufactured in North America, Mircom™ products have among the lowest warranty claims in the industry
- FleX-Net™ systems are built using FX-2000 system components, proven in over a thousand installations, worldwide
- MGC™ has built its reputation on exceptional service, from initial design, to trouble-free installation, and after-sale technical support

**Engineering and Fire Consultants**

**Survivability** Network redundancy – no single point of failure
- True ‘Peer to Peer’ network configuration ensures survivability
- Proven ARCNET™ communications protocol
- Up to 15 coordinated Digital Signal Processors per node
- Synchronized audio signaling across nodes allows multiple nodes to control common areas

**Flexibility** Intelligent network with seamless integration with Building Management Systems
- Sophisticated Boolean logic with built-in, configurable timers with interval and scheduling to support complex smoke control functions
- Support of hardwire circuits to uniquely support retrofit applications
- Fully digital system network utilizing 1 twisted pair conductors or fiber optic cable for both control and audio
- New Local Operating Console (LOC) supports fully integrated paging and emergency audio and firefighter telephones
- Annunciators do not decrease node capacity

**Versatility** Supports a wide array of signaling and detection system modules
- Offers a wide array of control and annunciation modules
- Advanced device support including laser based smoke detection, multi-criteria sensors, variable analog input modules and monitoring of gas and environmental sensors
- Digitized voice messages utilizing custom .wav file format
Owners and Property Managers

Expandability Modular design enables you to grow your network in size and/or functionality
- Up to 63 nodes with a capacity for over 5,000 I/O points per node, supporting over 250,000 points on a single network
- Virtually no practical limit to network wire length
- System supports both copper wire and/or fiber optic network cabling

Affordability FleX-Net™ offers the ability to combine Fire Detection and Mass Notification functionality to realize cost savings
- Up to 7 display and control chassis per node, including local, group or global control
- Designed to support both conventional and intelligent detection for retrofit applications
- Unique system architecture provides lowest system cost

Accessibility FleX-Net™ is supported abroad by a world-wide network of Authorized Distributors that offer the best competitive value in the industry
- Factory-trained and accredited installation and service technicians
- Local sales, service and repair parts centers ensure the best support for your system

On-site Maintenance Staff and Technicians

Serviceability Intuitive to install, program, and service; Backed-up with exceptional technical support
- ‘State of the Art’ system software stores up to 3 configurations at one time, simplifying loading and program testing
- Service technicians have the ability to load software from one node to the entire network without taking any panel off-line
- Expanded system event reporting from a large front panel LCD display eliminates the need for a service computer
- Ethernet port provides web server system access for both local and remote reporting and diagnostics

Building Staff and Fire Department Operators

Simplicity Easy to use, intuitive to operate
- Advanced control, including ‘Warden Page’ that integrates remote firefighter phones with audio/evacuation speakers network wide
- ‘Plain language’ XML based system reports
- Firmware upgrades in the field ensure that the system is always up-to-date
- A suite of system diagnostic tools are available to assist service staff

Intelligibility Clear, easy-to-understand instructions, pre-programmed or in real time
- True multi-channel audio allows each node to support up to three unique alarm and alert tones
- Multiple displays in every MNS cabinet for distinguishing between Fire Detection and Mass Notification Events
- Clear and easy to understand text or graphic display of system events
SYSTEM COMPONENTS

FIRE DETECTION AND AUDIO

**MNS Command Center**
Expandable to 25 Intelligent Signaling Line Circuits (SLC) with paging, telephone and allows for up to 180 watts per panel

**Audio Expansion Panel**
Provides up to three audio expansion panels for an additional 1,080 watts of audio per node

**Audio Network Node**
Expandable to 9 Intelligent Signaling Line Circuits (SLC) and allows for up to 180 watts of audio per panel

**Local Operating Console (LOC)**
Up to 7 LOCs can be attached to each ACU, with a number of expansion options to provide emergency paging and notification using live or pre-recorded messages

**Compact Network Panel**
Expandable to 9 Intelligent Signaling Line Circuits (SLC) with up to 3 expansion modules

**Mid-Size Network Panel**
Expandable to 29 Intelligent Signaling Line Circuits (SLC) with up to 17 expansion modules

**Large Size Network Panel**
Expandable to 29 Intelligent Signaling Line Circuits (SLC) with up to 9 expansion modules, available in a variety of enclosures

ANNUNCIATORS

**Intelligent LCD Network Annunciator**

**Open Graphic Navigator Software**

FIRE DETECTION & ALARM PANELS

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SYSTEM MODULES

The FleX-Net™ intelligent network system has the most extensive range of system modules, detection devices and signaling appliances available. More than an advanced network system, FleX-Net™ delivers a complete project solution with the support of over one hundred advanced, proven and affordable Mircom® fire detection modules.

**Signaling**
A wide selection of indoor and outdoor speakers and speaker/strobes to supply the best notification and evacuation for any application

**Auxiliary / Accessories**
Including system accessory modules, power supplies, batteries, line modules, digital communicators, devices and device accessories

**Detection**
Advanced smoke, heat and multi-technology sensors in standard and specialty detector configurations

**Open Graphic Navigator Software**

**Intelligent LCD Network Annunciator**

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**Open Graphic Navigator Software**

**Intelligent LCD Network Annunciator**
System Configurations

Mass Notification System (MNS)

Autonomous Control Unit (ACU)

Local Operating Console (LOC)

Up to 7 FX-LOCs per MNS Node

Network Connection – 1 pair copper or 1 fiber link for integrated digital communication or 3 pairs copper for analog control, audio, and telephony

Central Alarm and Control Facility

CACF NODE 1

Programming PC

Internal RS-485

RS-485

Ethernet

RS-232

Printer

Building Management System

Central Alarm and Control Facility

LCD Annunciator

Up to 7 per NODE

Up to 3 Audio Expansion Cabinets per Node

Up to 63 Nodes

The advanced Flex-Net™ network supports tower, campus or a combination of wiring configurations within the network, with complete ‘peer to peer’ system integrity.

Intelligent Fire Detection & Alarm and Mass Notification Network
About the Mircom Group of Companies

The Mircom Group of Companies (MGC) is North America’s largest independent designer, manufacturer and distributor of advanced Fire Detection & Alarm, Emergency Communications and Controlled Access & Security solutions, serving the global marketplace for over 20 years. MGC wholly owns the Mircom “Secutron” and Summit” branded lines of fire detection products. With corporate headquarters located in Toronto, Ontario and Niagara Falls, New York, MGC operates a dedicated network of sales and service branch offices, across North America, under its Mircom Engineered Systems™ service brand.

MGC Systems International Limited supports the sale and installation of MGC’s systems in more than 50 countries worldwide, with regional offices located in Bangalore, India and Dubai, UAE. Under its U.E.C.” (United Export Corporation) service brand, MGC distributes a broad range of exceptional fire protection equipment to more than 70 international markets.