

# Advanced

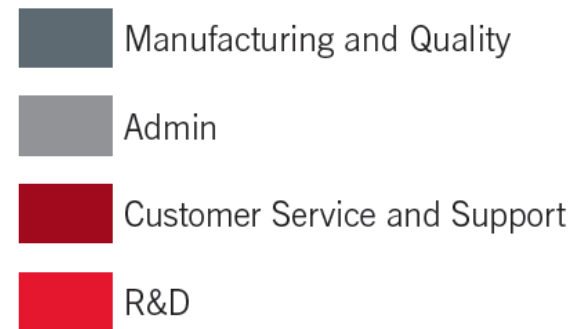
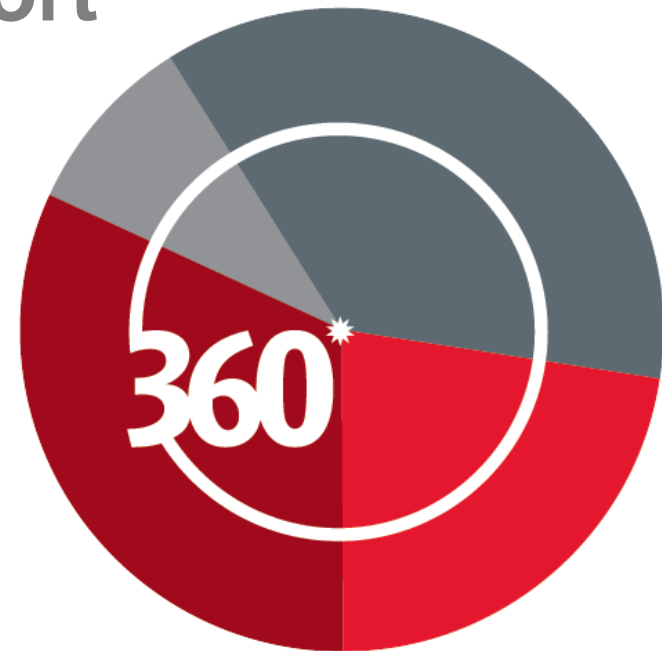
The Standard in Fire Systems

## Different types of Fire Alarm System –

- **Conventional Fire System – Generally comes with Zones. Each zone can have max 20 detectors.**
- **Addressable Fire Alarm System – This comes in loops. Different manufacturer has different loop capacity.**
- **Aspirating Smoke Detection System – Independent unit installed for very early smoke detection system. It can be connected to Fire Alarm system.**
- **Video Smoke detection system – Standalone system can be connected to Fire Alarm system**

# Easily More R&D & Support

- Over half the business dedicated to R&D and Support
- Investment in leadership
- Less requirement for support
- Leading industry expertise
- Sit on industry bodies across the globe
- Worldwide approvals
- 'Industry first' approvals
  - EN54 Part 13
  - Entire Australian product range to BCA AS1670



# Lifetime Personalised Online Support

- Open support tickets
- View support history
- Download software/firmware
- Download warranty certificates
- Book training
- Download training certificates
- Download manuals etc
- Request marketing support
- Book product demos
- Order Approved Partner certs
- Available 24/7 from anywhere



# Approvals & Memberships



# Advanced 360\*

Legendary Customer Service  
Training & Tech Support





Instant telephone and online support

Team of over 30 fire experts  
Designers, coders, engineers

Full system network  
simulators

Full system training at 3 UK  
and 3 overseas tech centers

Lifetime training passport

On site tech support service

After sales service team

Built to fit individual  
customers

# MxPro

The Leading  
Multiprotocol  
Choice







**MxPro<sup>4</sup>**

Choose your panel,  
Choose your detector,  
Choose your installer.



**MxPro<sup>5</sup>**

Real Freedom.  
Advanced Quality.

# Axis<sup>EN</sup>

**The Fire System for the EN54 World**



# Axis<sup>AX</sup>

## The Fire System for the UL 864 World



# ExGo

## Ultra-dependable Extinguishing Control



## ➤ Fire Alarm System Features – Design Guideline NFPA 72

- UL Listed & En Approved Fire Alarm Systems.
- 1 to 4 loop capacity with UL listed panel.
- Loop capacity 125 detectors/devices per loop.
- 1 to 8 loop capacity with En approved Panel.
- 240 detectors + Devices per loop. (En Approved System)
- Redundant CPU Panel available.
- Touch Screen Repeater panels
- All Devices are with inbuilt isolators.
- Lite detector series available without inbuilt isolator.
- Networkable upto 200 nodes.

# EN54 Part 13

- Be wary of products designed to... (all advanced products are approved)
- Ensure all components are sourced and manufactured in house
- Indication and response times from CIE are set-out in the EN standards and EN54-13:2005 (E) 4.3.2.1 states that “a fire alarm condition shall be indicated on the main CIE with 20 seconds.”
- ***The typical delay for a panel to indicate a fire from any zone on 50 panel ad-net+ network is less than one second and well within specification on a fully loaded 200 panel system.***

# EN54 Part 13

## Requirements:

- All components are individually tested and certified to the relevant harmonised product standard
- Work together and fully operate as specified
- Do not interfere with any mandatory function
- For system compliance, all components that are to be connected must be identified in the documentation and must be tested for compatibility

## Component approvals

- All components fully approved to the appropriate harmonised standard.
- All components been tested together for system compatibility in all modes of operation.

## Transmissions paths

- A system capable of indicating partial short and partial open conditions for ALL possible load conditions. (***Can be hidden until fire condition***)

# MxPro 5 – Our Most Advanced Panel





# MxPro 5 Features

- EN54 Parts 2,4 & 13
- 1-8 Loop
- 3 protocols
- Up to 2,000 zones
- 200 Node networks
- True peer-to-peer network
- Fault tolerant networking
- 200,000 devices per network
- Unique on-board diagnostics tools
- On-board scope
- RCTs, BMS, ipGateway, I/O drivers
- Huge range of peripherals
- Simple installation and configuration
- Primary/second activation. i.e. Flash if fire started here.
- Drift and new Warning State – can be downloaded to service tool. Dirty detectors can give warning instead of a fault



# MxPro 5 Features

- Autolearn facility
- In built P-Bus
- 20 on board programmable LEDs
- 4 programmable push buttons
- 201 programmable false alarm management zones per panel
- Complete device history from any panel
- Timed enablement of isolated zones, input and output devices
- Advanced logic and easily programmed cause-and-effect
- Service Tool
- Backward compatible
- Multiprotocol network
- MODBUS/BACNET compatible



# Programming

- Up to 200 Output Groups available per panel
  - Panel is pre-configured with default Output Groups for on-board and loop powered devices
  - Outputs can be programmed to operate upon Zone Range, Time-Clock, General Event, Input Events & Logic Statements
  - Programmable Ringing Styles provide a solution to programming Phased Evacuation
  - Common graphical LCD user interface & software
  - Common menu structure for day-to-day operation of panels
  - User-friendly Windows based Dynamix
- Tools configuration software common to all panels
- Powerful Cause & Effect features
  - Common range of peripheral devices
  - All Outputs are fully programmable to respond to any combination of Input signal type (Logic)
  - Outputs can be programmed across network by zone, input device, general event, time clock, or logic statement
  - Test alarms can be programmed to have a completely independent Cause & Effect (Local Panel)

# False Alarm Management

- Day/Night sensitivity modes
- Investigation delay for selectable Inputs and Outputs
- Multiple On-board, 7 day time-clocks can be used to control any Input/Output device
- Any Input device can be gated with a time clock to provide a manual control

## Categories of False Alarm Management

Alarm Verification features can be used to help verify if an activated condition from a device is considered to be a genuine alarm before the fire alarm condition is displayed on the panel.

Investigation Delays to Outputs – can be used to delay the operation of certain outputs after the Fire Alarm condition is displayed

# False Alarm Management

- Divide a building into up to 10,000 independent false alarm building areas
- Network points can be assigned to the building areas
- Assign verification and investigations to the building areas
- Assign detection thresholds, sounder styles etc.

**Site List**

- Panel 1 M65400 (Node 1)
  - On-Board
  - User Interface
  - Peripheral Bus
  - Loop 1
  - Loop 2
  - Loop 3
  - Loop 4
- Panel 2 M65400 (Node 2)

**Alarm Verification**

Verification Method: Type 8 (Displayed)  
 Verification Time: 240 seconds  
 Minimum Time in Verification: 300 seconds  
 Second Stage Time: 0 seconds  
 Sounder Ringing Style: 0 (Style 0)  
 Maximum Areas in Verification: 1  
 Time Clock: Clock 1

	Other Areas	1	2	3	4	5
<b>Day Mode (Time Clock On)</b>						
Allow Verification	YES	YES	YES	YES	YES	YES
Allow Acknowledge (AAF)	YES	YES	YES	YES	YES	YES
Verified by 2nd Device	-	-	YES	-	-	-
Verified by Mode Change	-	YES	-	-	-	-
<b>Night Mode (Time Clock Off)</b>						
Allow Verification	-	YES	-	-	-	-
Allow Acknowledge (AAF)	-	YES	-	-	-	-
Verified by 2nd Device	-	YES	-	-	-	-
Verified by Mode Change	-	-	-	-	-	-
<b>Verification Inputs</b>						
Heat Detectors	-	-	-	ALL	-	-
Smoke Detectors	ALL	PER POINT	ALL	ALL	ALL	ALL
Multi Sensors	-	-	ALL	-	-	PER POINT
Other	-	PER POINT	-	-	PER POINT	-
<b>Verification Outputs</b>						
Sounders	ALL	PER POINT	-	ALL	PER POINT	-
Beacons	PER POINT	-	ALL	PER POINT	-	ALL
Relays	-	ALL	PER POINT	-	ALL	PER POINT

# AlarmCalm



Intelligent Alarm  
Acknowledgement  
& False Alarm  
Reduction

# False Alarm Management

Alarm Verification	
Verification Method	Type B (Displayed)
Verification Time	240 seconds
Minimum Time in Verification	300 seconds
Second Stage Time	0 seconds
Sounder Ringing Style	0 (Style 0)
Maximum Areas in Verification	1
Time Clock	Unused

## Verification Method;

**Type A** (Not Displayed) or **Type B** (Displayed)  
*If Type B selected 'Verifying' (Pre-Alarm) is displayed on the panel during the verification period*

Verification Time- If one or more devices in the same area stays in alarm for longer than time specified the panel will enter a fire condition.

Min Time in Verification - Devices will not return to normal until this time has time has elapsed

Second Stage Time - Further time to clear the alarm condition if stage 1 is acknowledged ( all other times n/a in stage 2).

Sounder Ringing Style - Any sounders operated during verification will use this ringing style (Note, irrespective of output rules!)

Max Areas in Verification - Maximum areas allowed in verification mode simultaneously across the network. (Fire Alarm displayed if number exceeded)

Time clock – Day / Night time settings

# False Alarm Management

False Alarm Management (Alarm Verificati		
	Other Areas	1
<b>Day Mode</b>		
Allow Verification	YES	YES
Verification uses AAF	YES	YES
Verified on 2nd Device	YES	YES
Verified by SSM Change	YES	YES
<b>Night Mode</b>		
Allow Verification	YES	-
Verification uses AAF	YES	-
Verified on 2nd Device	YES	-
Verified by SSM Change	YES	-
<b>Verification Inputs</b>		
Heat Detectors	ALL	ALL
Smoke Detectors	ALL	ALL
Multi Sensors	ALL	ALL
Other	PER POINT	PER POINT
<b>Verification Outputs</b>		
Sounders	ALL	ALL
Beacons	ALL	ALL
Relays	-	-

Alarm verification is used in Building Area 1 during the day time only

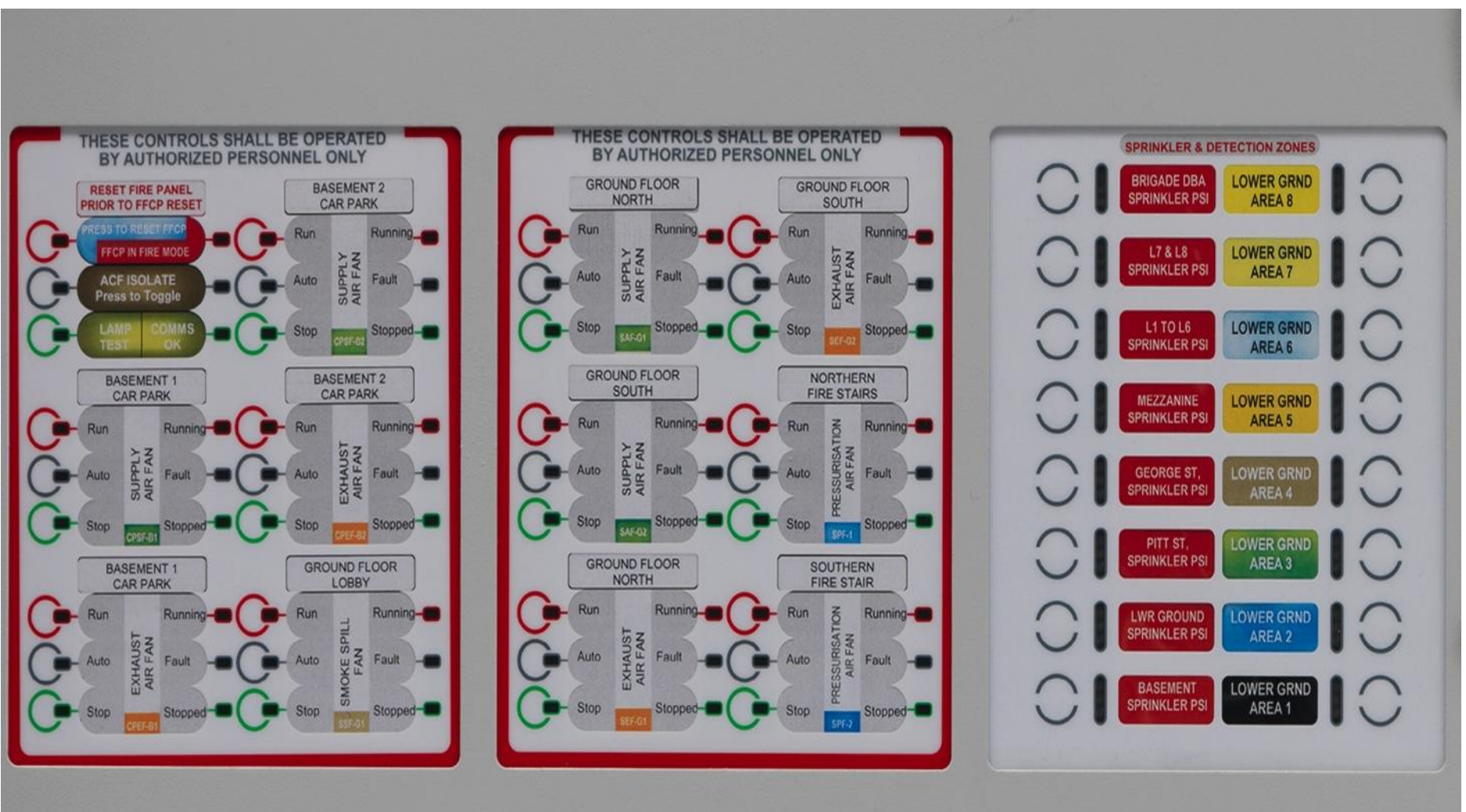
The verification time can be extended using a designated 'acknowledgement' button

Alarm Verification is used for all Heat, Smoke and Multi sensor detectors in the area. Other devices (such as Input modules and Call Points) are selected by device.

All Sounders and Beacons in Area 1 will be operated during the verification period when the device activated is also in area 1. This will happen automatically regardless of any cause and effect rules. Relays would not be operated.



# Integrated Smoke & Fan Control



# Integrated Smoke & Fan Control

- Integrated control interface and PCBs
- Simple configuration software – colour coded for status settings
- Set multiple smoke and/or damper compartments
- Define compartment detection zones
- Map fans, duct probes and node settings

### Damper Compartment Operation

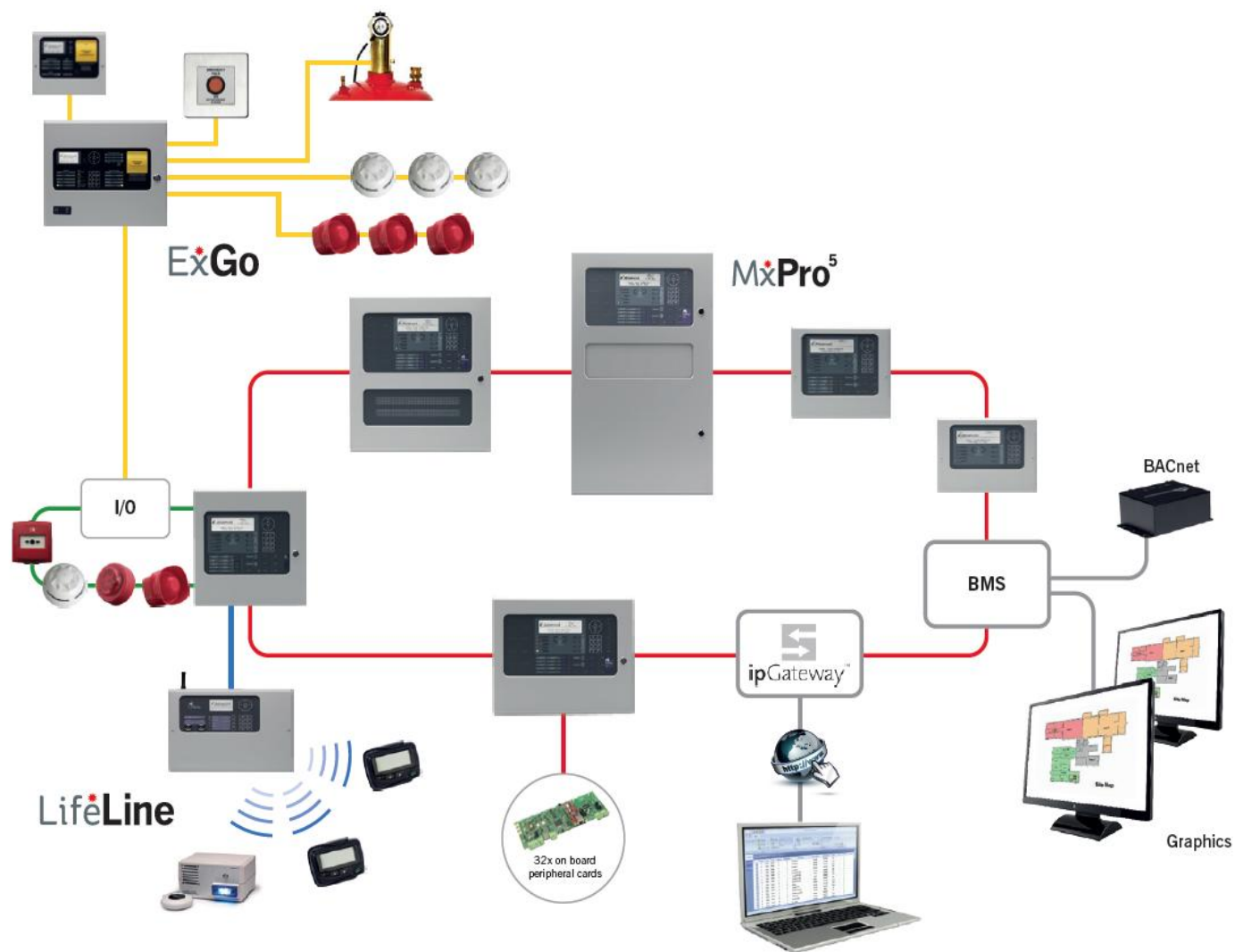
Damper	Compartment 1 Basement Car Park	Compartment 2 Basement Loading Bay	Compartment 3 Retail Level 1	Compartment 4 Retail Level 2	Compartment 5 Retail Level 3	Compartment 6 Office East	Compartment 7 Office West	Compartment 8 Top Floor
0001 Basement Car Park	CLOSE	CLOSE	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN

Site List Panel1 Au5400

**Smoke Compartment**

- Compartment 1 (Basement Car Park)
- Compartment 2 (Basement Loading Bay)
- Compartment 3 (Retail Level 1)
- Compartment 4 (Retail Level 2)
- Compartment 5 (Retail Level 3)
- Compartment 6 (Office East)
- Compartment 7 (Office West)
- Compartment 8 (Top Floor)

# MxPro 5 Networking

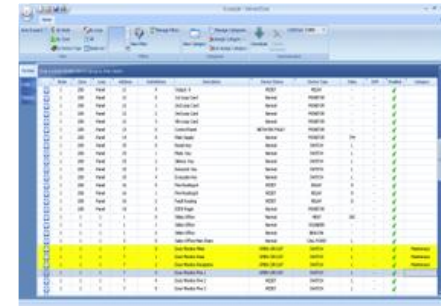


# Networking

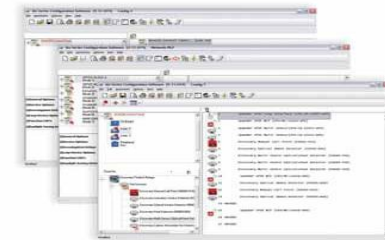
- Up to 200 control panels.
- Peer to Peer, token passing ring technology
- Up to 20Km as Standard.
- Fully monitored and Secure network.
- Communications bus all achieved using standard 2 core fire resistant cable
- Capable of withstanding single faults between nodes
- Communications bus all achieved using standard 2 core fire resistant cable
- Fibre optic networking
- Non-confusing zone config (Up to 2000)
- Allows larger sites to be protected by distributing fire panels instead of taking all detection circuits back to one point
- Increased system integrity, reduced installation costs
- Allows information from any input or output point to be passed over network and displayed on any MxPro<sup>5</sup> control panel
- Two types of network available:
  - Standard Network Radial configuration
  - Fault-tolerant Network Loop configuration

# Software Overview

- Designed by fire engineers to be quick, intuitive and easy to use.
- Design Check Calculator
- Dedicated Service/Config/Maintenance tools
- Virtual panel & logo programming
- Service Tool provides a complete Device History data base providing information such as device installation, test, isolation to information such as last activation.
- Windows based



ID	Device	Location	Status	Notes
001	Smoke Detector	Room 101	OK	
002	Smoke Detector	Room 102	OK	
003	Smoke Detector	Room 103	OK	
004	Smoke Detector	Room 104	OK	
005	Smoke Detector	Room 105	OK	
006	Smoke Detector	Room 106	OK	
007	Smoke Detector	Room 107	OK	
008	Smoke Detector	Room 108	OK	
009	Smoke Detector	Room 109	OK	
010	Smoke Detector	Room 110	OK	
011	Smoke Detector	Room 111	OK	
012	Smoke Detector	Room 112	OK	
013	Smoke Detector	Room 113	OK	
014	Smoke Detector	Room 114	OK	
015	Smoke Detector	Room 115	OK	
016	Smoke Detector	Room 116	OK	
017	Smoke Detector	Room 117	OK	
018	Smoke Detector	Room 118	OK	
019	Smoke Detector	Room 119	OK	
020	Smoke Detector	Room 120	OK	



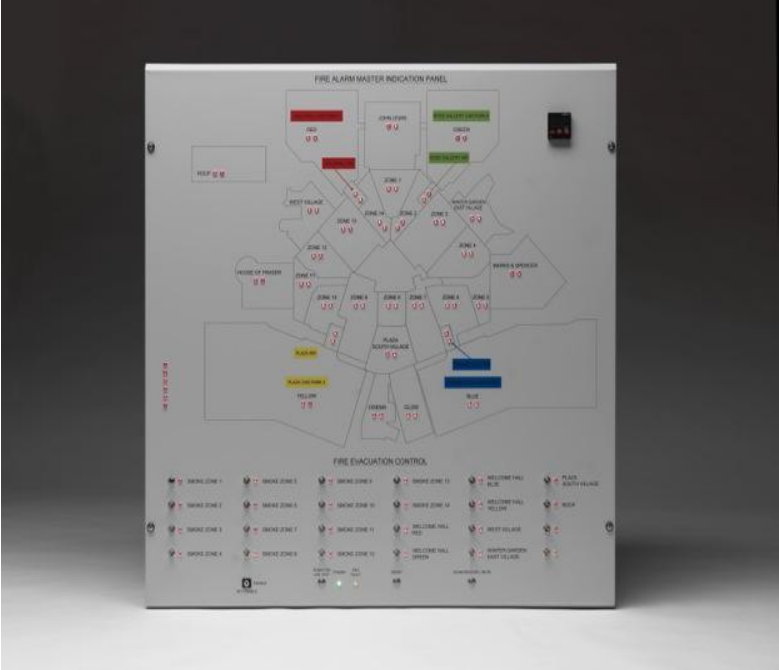
# 48 Way I/O

- 48 way programmable I/O driver card
- Up to 16 cards can be connected = 768 I/O
- Switch/LED module
- Flexible programming
- Internal RS 485 Bus



# LED Mimic Display Card

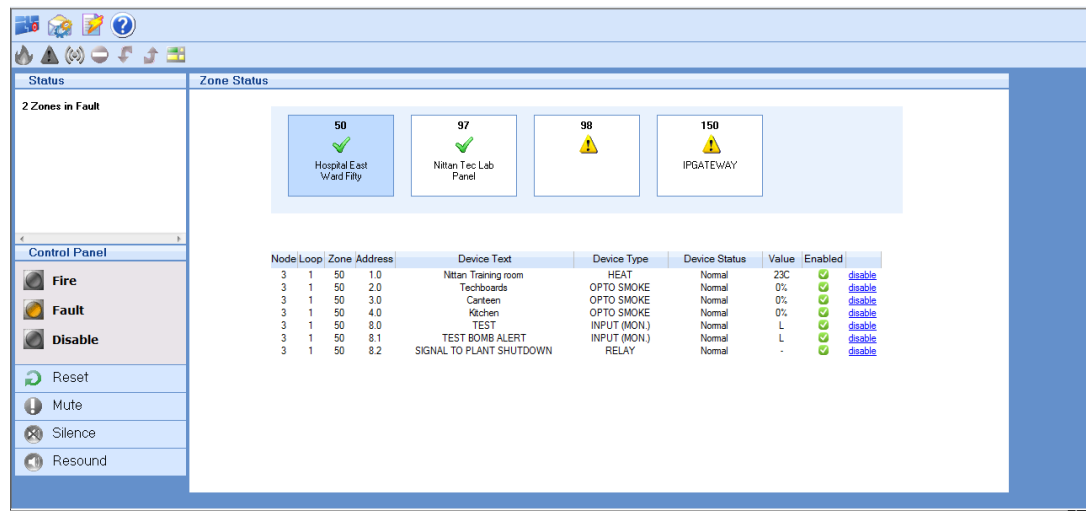
- Can be mounted locally in a multi-loop panel to display zones in fire
- Alternatively can be mounted in bespoke remote enclosure together with a building plan
- All mimics are fully programmable units that connect to the network



# ipGateway

The ipGateway is a web based IP solution providing the following functionality:

- Internal/External IP Network Access
- Browser in-built to ipGateway
- Direct Network Connectivity
- Full Level 2 Management Control
- Network Event Log
- Events can be sent via Email

**Status**  
2 Zones in Fault

**Zone Status**

50 Hospital East Ward Filly	97 Nittan Tec Lab Panel	98	150 IPGATEWAY
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**Control Panel**

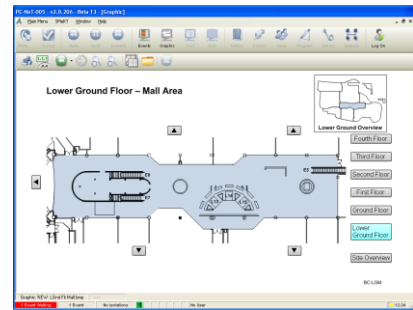
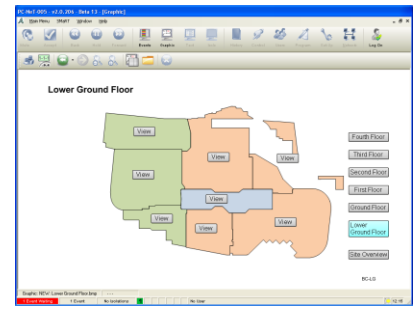
- Fire
- Fault
- Disable
- Reset
- Mute
- Silence
- Resound

Node	Loop	Zone	Address	Device Text	Device Type	Device Status	Value	Enabled
3	1	50	1.0	Nittan Training room	HEAT	Normal	23C	<input checked="" type="checkbox"/> <a href="#">disable</a>
3	1	50	2.0	Techboards	OPTO SMOKE	Normal	0%	<input checked="" type="checkbox"/> <a href="#">disable</a>
3	1	50	3.0	Carteen	OPTO SMOKE	Normal	0%	<input checked="" type="checkbox"/> <a href="#">disable</a>
3	1	50	4.0	Kitchen	OPTO SMOKE	Normal	0%	<input checked="" type="checkbox"/> <a href="#">disable</a>
3	1	50	8.0	TEST	INPUT (MON.)	Normal	L	<input checked="" type="checkbox"/> <a href="#">disable</a>
3	1	50	8.1	TEST BOMB ALERT	INPUT (MON.)	Normal	L	<input checked="" type="checkbox"/> <a href="#">disable</a>
3	1	50	8.2	SIGNAL TO PLANT SHUTDOWN	RELAY	Normal	-	<input checked="" type="checkbox"/> <a href="#">disable</a>



# MxGraphics

- HD resolution
- 16 million colours
- 2000 graphics & zoom explorer
- Test Instruction Page for operators
- Isolation and fire panel controls
- Unlimited history/log
- Report printing
- Site graphic control
- Site navigation
- Event listings
- History search



Time	Event Type	Location	Status	Reference	Accepted by
19:43:10	FIRE DETECTED (Location 2)	Electrical Sub Station No.1	Accepted	20-120	Chris Iltman-O'neil (Europe) Ltd
19:45:02	FIRE DETECTED (Location 2)	Chest Clinic	Accepted	20-100	-
19:45:02	FIRE DETECTED (Location 2)	Female Changing Room	Accepted	20-100	-
19:43:47	FIRE DETECTED (Location 2)	Reception Desk	Accepted	20-100	Chris Iltman-O'neil (Europe) Ltd
19:45:45	FIRE DETECTED (Location 2)	Male Changing Room	Accepted	20-100	-
19:43:36	MEDICAL GASES - ALERT	Medical Gas Store 2	Accepted	20-120	Chris Iltman-O'neil (Europe) Ltd
19:44:16	MEDICAL GASES - FAULT (Location 1)	Reception Desk	Accepted	20-152	Chris Iltman-O'neil (Europe) Ltd
19:42:22	FIRE DEVICE - ISOLATION	General Office	Accepted	20-131	-
19:44:42	FIRE DEVICE - ISOLATION	Lift Lobby	Accepted	20-151	-
19:45:11	FIRE DEVICE - ISOLATION	Reception Desk	Accepted	20-151	Chris Iltman-O'neil (Europe) Ltd
19:44:01	PLUMB - MALFUNCTION	Sub Station No. 1a	Accepted	24-100	Chris Iltman-O'neil (Europe) Ltd
19:45:50	FIRE DETECTED (Location 2)	K-way Waiting Room	Accepted	25-100	Chris Iltman-O'neil (Europe) Ltd
19:44:02	SMALL - FAULT	Small Park Room 10A	Accepted	25-100	Chris Iltman-O'neil (Europe) Ltd
19:43:43	SMALL - FAULT (Location 2)	C Park Roller Shuttle	Accepted	24-100	Chris Iltman-O'neil (Europe) Ltd
19:43:54	SMALL - FAULT (Location 2)	Main Entrance	Accepted	24-100	Chris Iltman-O'neil (Europe) Ltd

**Journal Event List**

Time	Event Type	Location
19:43:10	FIRE DETECTED (Location 2)	Electrical Sub Station No.1
19:45:02	FIRE DETECTED (Location 2)	Chest of Pict
19:45:02	FIRE DETECTED (Location 2)	Female Changing Room
19:43:47	FIRE DETECTED (Location 2)	Reception Desk
19:45:45	FIRE DETECTED (Location 2)	Male Changing Room
19:43:36	MEDICAL GASES - ALERT	Medical Gas Store 2
19:44:16	MEDICAL GASES - FAULT (Location 1)	Reception Desk
19:42:22	FIRE DEVICE - ISOLATION	General Office
19:44:42	FIRE DEVICE - ISOLATION	Lift Lobby
19:45:11	FIRE DEVICE - ISOLATION	Reception Desk
19:44:01	PLUMB - MALFUNCTION	Sub Station No. 1a
19:45:50	FIRE DETECTED (Location 2)	K-way Waiting Room
19:44:02	SMALL - FAULT	Small Park Room 10A
19:43:43	SMALL - FAULT (Location 2)	C Park Roller Shuttle
19:43:54	SMALL - FAULT (Location 2)	Main Entrance
19:43:54	FIRE DETECTED (Location 2)	Store 10A

**FIRE**

**LOCATION: Male Changing Room**

**CONTACT: TELEPHONE 999**

**FIRE DUTY OFFICER: Mr PETERSON**

**IMPLEMENT EVACUATION PLAN IMMEDIATELY**

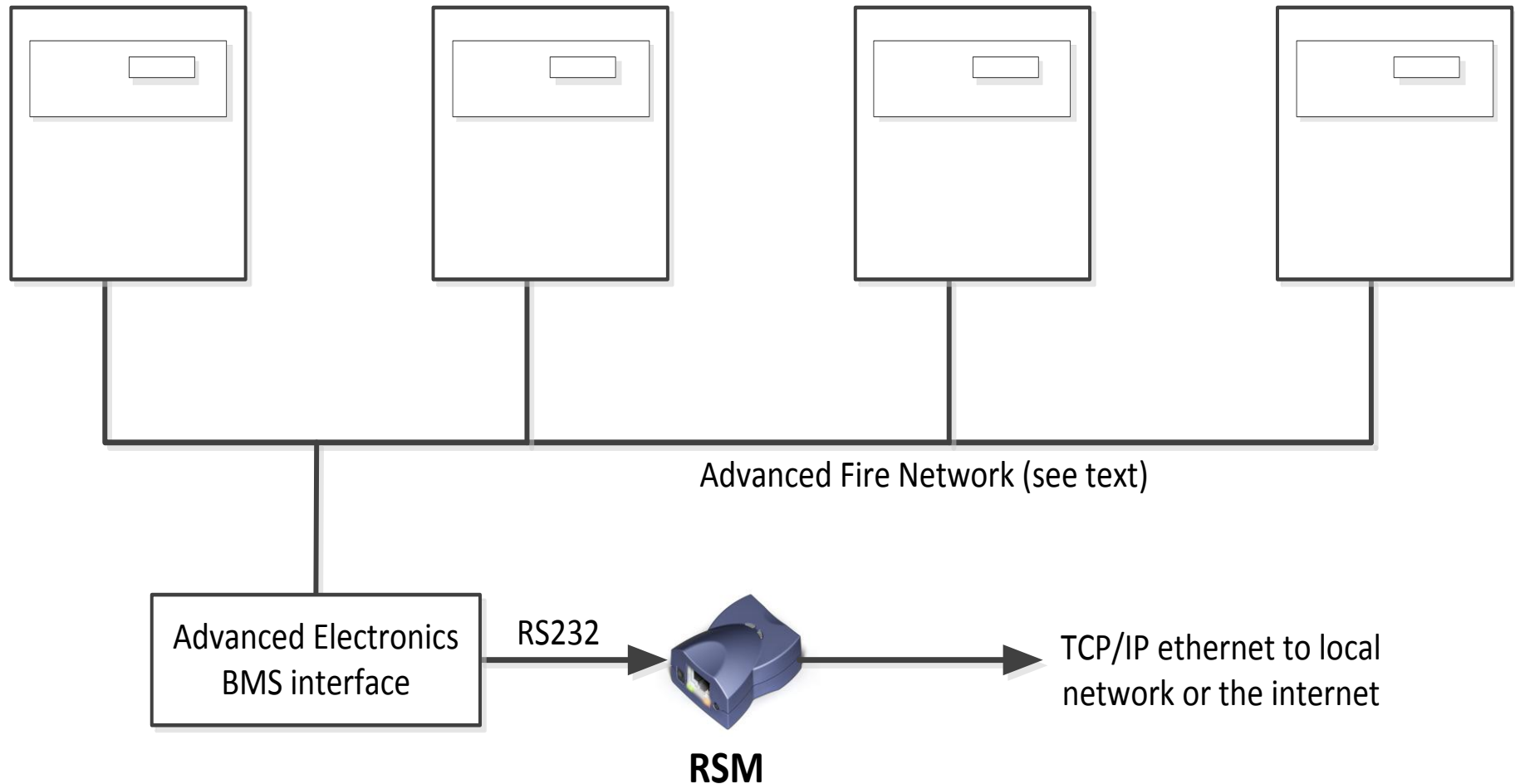
Date	Time	Description	Type	Location	Classification
08/07/08	11:12:28	MEDICAL GASES - ALERT	Alert	Medical Gas Store 1	Weekly Test
08/07/08	11:16:05	MEDICAL GASES - ALERT	Alert	Medical Gas Store 1	Weekly Test
08/07/08	10:31:01	MEDICAL GASES - ALERT	Alert	Medical Gas Store 1	Weekly Test
20/08/08	15:33:45	FIRE - BOMBING - FAULT	Alarm	Chest of Pict	Service Operation
08/07/08	10:32:50	FIRE - BOMBING - FAULT	Alarm	Reception Desk	Service Operation
08/07/08	11:32:25	FIRE DEVICE - ISOLATION	Isolation	Reception Desk	Contractors Working
08/07/08	11:20:26	FIRE DEVICE - ISOLATION	Isolation	Trrolley Tunnel 10B	Contractors Working
08/07/08	15:02:42	FIRE DEVICE - ISOLATION	Isolation	Reception Desk	Contractors Working
08/07/08	11:13:25	FIRE DEVICE - ISOLATION	Isolation	Male Changing Room	Contractors Working
08/07/08	11:20:26	FIRE DEVICE - ISOLATION	Isolation	Trrolley Tunnel 10A	Works Complete
08/07/08	11:32:25	FIRE DEVICE - ISOLATION	Isolation	Reception Desk	Works Complete
08/07/08	10:32:48	FIRE DEVICE - ISOLATION	Isolation	Male Changing Room	Works Complete
20/08/08	15:45:45	FIRE DETECTED (Location 2)	Alarm	Store 10A	BPS Quarterly Testing
20/08/08	15:45:45	FIRE DETECTED (Location 2)	Alarm	Store 10B	BPS Quarterly Testing
20/08/08	15:45:45	FIRE DETECTED (Location 2)	Alarm	Store 10C	BPS Quarterly Testing
20/08/08	15:45:45	FIRE DETECTED (Location 2)	Alarm	Electrical Sub Station No.1	BPS Quarterly Testing
20/08/08	15:45:45	FIRE DETECTED (Location 2)	Alarm	Trrolley Tunnel 10B	BPS Quarterly Testing
20/08/08	15:45:45	FIRE DETECTED (Location 2)	Alarm	Trrolley Tunnel 10A	BPS Quarterly Testing
20/08/08	15:45:45	FIRE DETECTED (Location 2)	Alarm	Female Changing Room	BPS Quarterly Testing
20/08/08	15:45:45	FIRE DETECTED (Location 2)	Alarm	Chest of Pict	BPS Quarterly Testing
20/08/08	15:45:45	FIRE DETECTED (Location 2)	Alarm	Reception Desk	BPS Quarterly Testing
20/08/08	15:45:45	FIRE DETECTED (Location 2)	Alarm	Chest Clinic	BPS Quarterly Testing
20/08/08	15:45:45	FIRE DETECTED (Location 2)	Alarm	Male Changing Room	BPS Quarterly Testing

# SmartCube – What is it?

- SmartCube is a Black-Box PC for remote panel networks that are connected using a TCP/IP solution.
- Each remote network requires a BMS/Graphical Interface.
- Each remote network connected via Smart Cube supports a maximum of 200 networked panels.
- Maximum number of 2047 remote networked panels using software license offset.

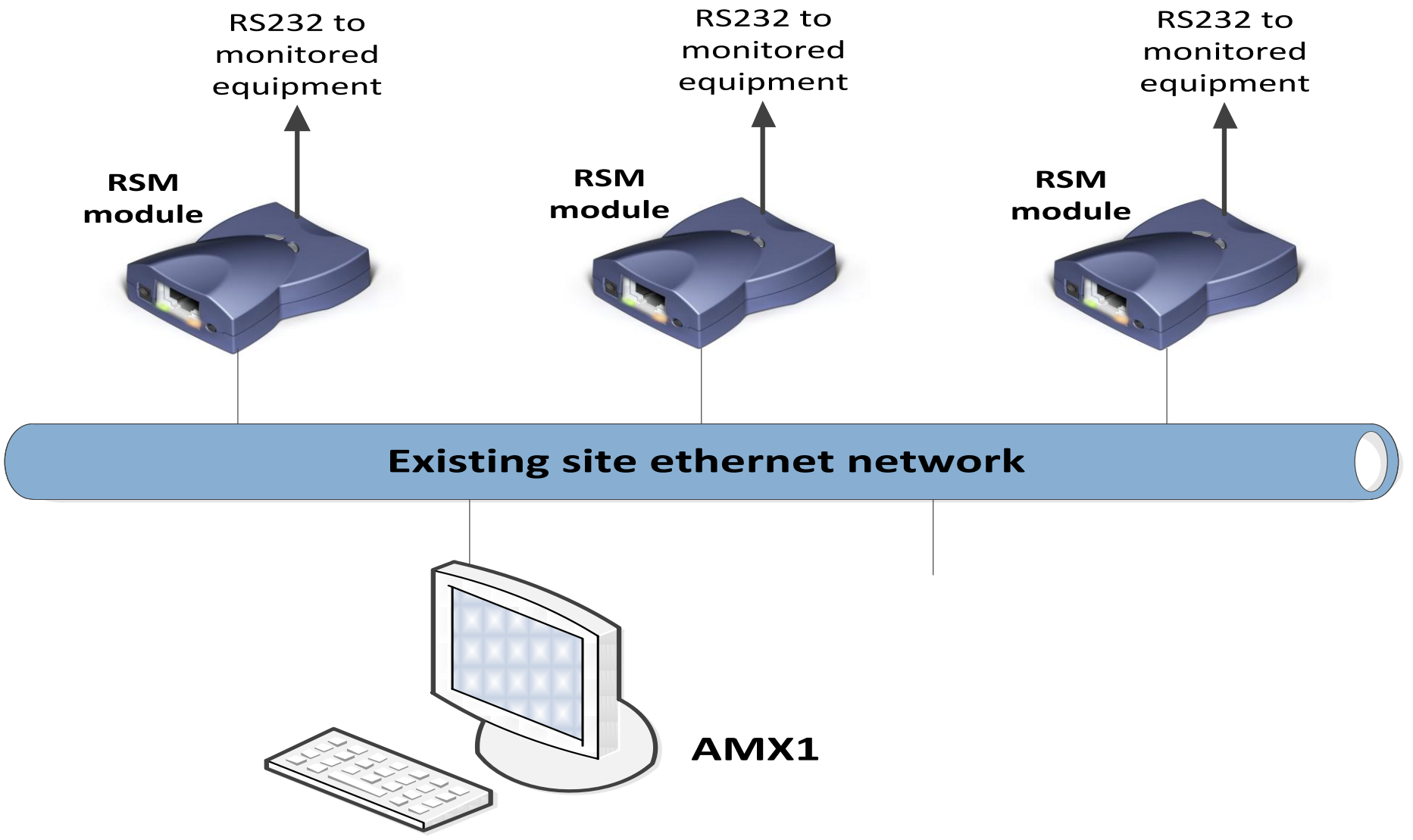


# Smart Cube – How it works?

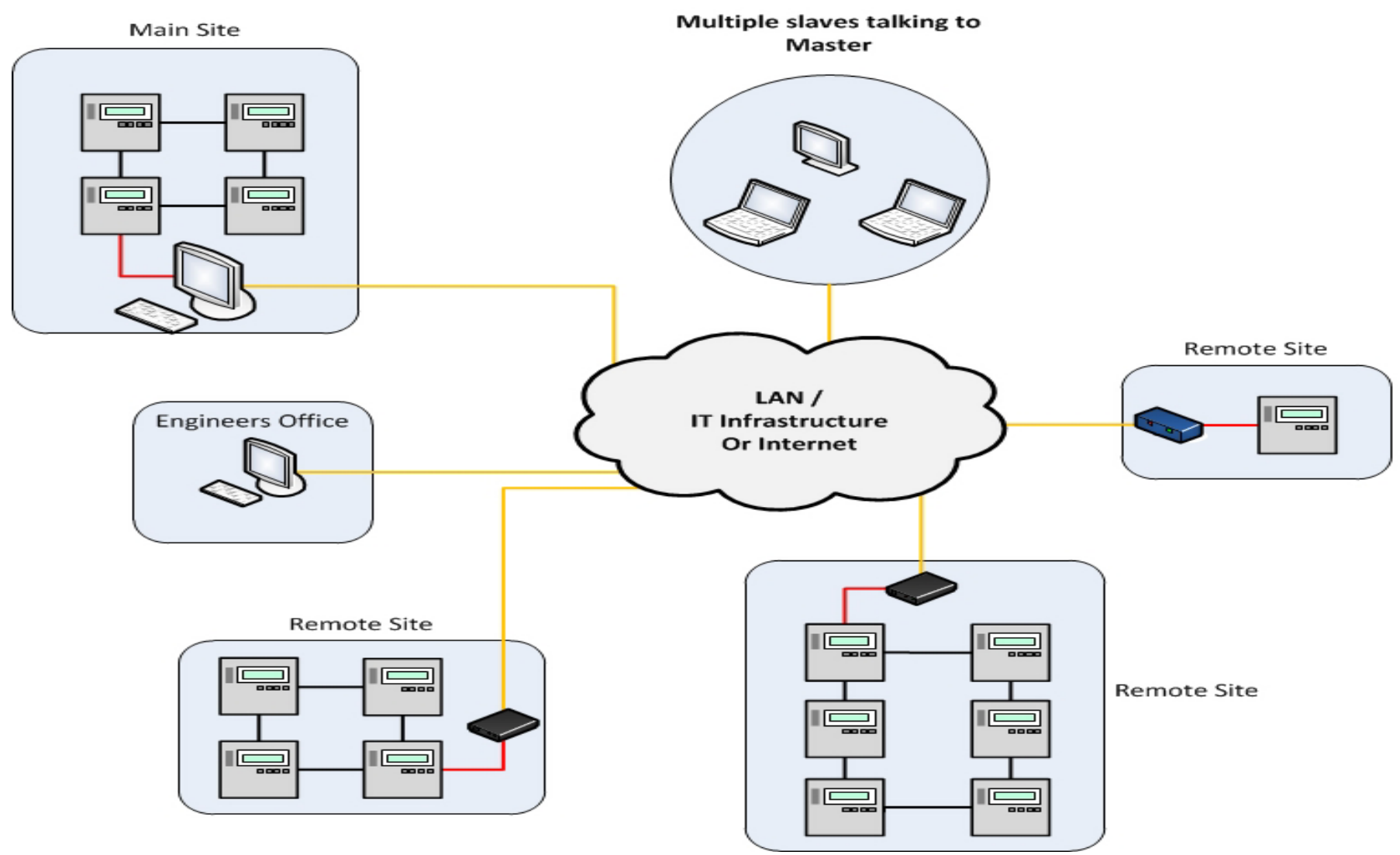


Maximum number of panels per Network is 200!

# Smart Cube – Basic Network Schematic



# Smart Cube – Advanced Network Schematic





Apollo Detectors and Devices	
Item Name	Item Id
<b>Detectors</b>	
XP95 Optical Smoke Detector	55000-600APO
XP95 Heat Detector Standard	55000-400APO
XP95 Heat Detector High Temperature	55000-401APO
XP95 Multisensor Detector	55000-885APO
XP95 Isolator	55000-720APO
Discovery Optical Smoke Detector	58000-600APO
Discovery Multisensor Detector	58000-700APO
Discovery Heat Detector	58000-400APO
<b>Bases</b>	
XP95 Mounting Base	45681-210APO
XP95 Isolating Base	45681-284APO
XP95 Isolator Base	45681-211APO
Blank XPERT Card	38531-771
<b>Manual Call Points</b>	
Intelligent Manual Call Point with Isolator	5A5900-908APO
Discovery Weatherproof MCP	58200-950APO
<b>Interfaces with Isolator</b>	
XP95 Input/Output Unit with Isolator	55000-847APO
XP95 Output Unit with Isolator	55000-849APO
XP95 Switch Monitor with Isolator	55000-843APO
Mini Switch Monitor	55000-760APO
XP95 Locally Powered Zone Monitor Unit with Isolator	55000-864APO
XP95 Zone Monitor Unit with Isolator	55000-845APO
XP95 Sounder Control Unit with Isolator	55000-852APO
<b>Intelligent Open Area Sounders and Visual Indicators</b>	
Intelligent Open-Area Sounder Red (Sonos)	55000-001APO
Intelligent Open-Area Sounder Visual Indicator Red (Sonos)	55000-005APO
Intelligent Open-Area Visual Indicator Red (Sonos)	55000-009APO



**Thank you.....**

**Questions???**

**Swarjita Rawool**

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