MicroEngine®

Integrated Security Systems

SNet

SNet Controller

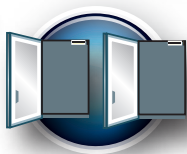## IP . High Capacity . Better Security

MicroEngine®

IP Based Multi-Door Integrated Security Controller
IP + Multi-Door + Lift + Alarm + Car Park

- ••• Modular System - Extension Board Based
- ••• Centralised Connection
- ••• Configurable to Distributed Architecture
- ••• Supports Door, Lift, Alarm Monitoring
- ••• 32-bit **ARM** RISC Processor
- ••• Alarm Monitoring
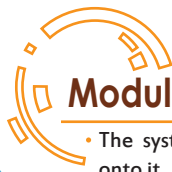
| IP | Door Access | 32-bit **ARM** Processor | Lift | Distributed Architecture | Guard Tour | Alarm |

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Modular System - Extension Board Based

- The system is designed to allow you to extend the capacity by simply adding extension boards onto it. This gives you the cost advantage when you are implementing minor capacity upgrades. Moreover, the extension board based design provides a consistent architecture in the system and this promotes better maintenance quality by reducing the system learning time.

Centralised Connection

- The cables are terminated in the controller. This allows faster data processing as transfer of data are all done onboard and the readers are directly connected to the controller.
- Centralised connection also promotes better deployment and maintenance quality. The engineers can perform the inspection and service all at one place and this can help to reduce the cost of maintenance operations.

Configurable to Distributed Architecture

- Where remote interfacing of door / reader or I/O are required, the controller supports these remote interfacing modules (RIM) that connect to the controller using RS485.
- This is a flexible and powerful controller capability that gives you the benefit of both useful centralised and distributed architecture in one box.

Supports Door, Lift, Alarm Monitoring

- The controller has been built for high-end integrated security applications. It can supports door access control, car park access control, lift access control and alarm monitoring.
- You can configure the capacity of the system by adding extension boards or remote interfacing modules.

32-bit ARM Processor

- The controller uses the 32-bit ARM RISC dual-core processor at 72MHz. This is a powerful processor for industrial applications and it enables the system to process the complex applications in real-time manner.
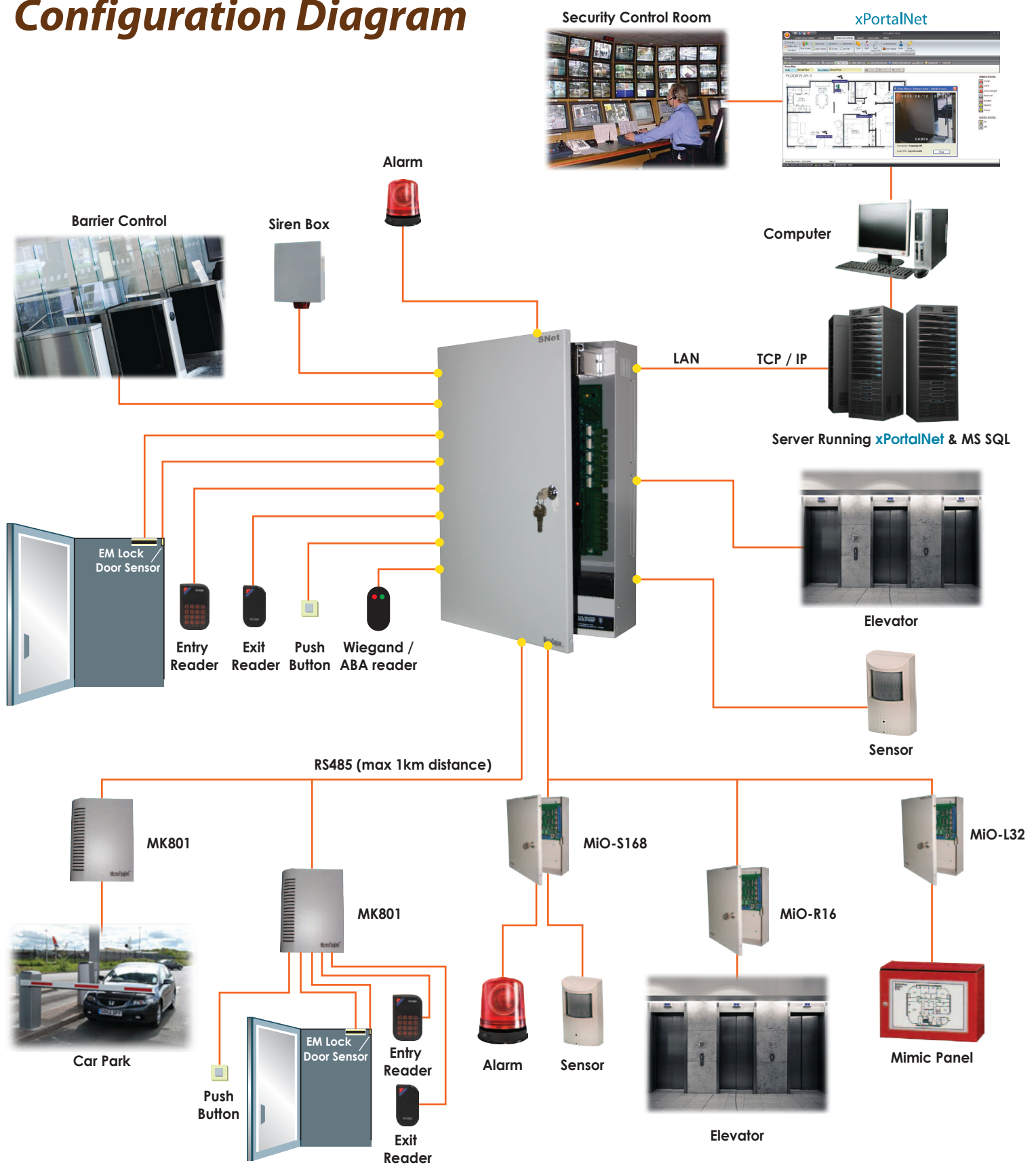
Onboard IP with Encryption

- The controller is equipped with LAN connectivity at 10/100 Base-T using TCP/IP protocol.
- It supports push based communication to computer for faster data transfer speed.
- The IP communication is encrypted using industrial standard AES128 for secured communication.

Remote Firmware Download

- Firmware can be downloaded from the application software via the IP interface.
- This helps to improve the maintainability of the controller at site. You can update or upgrade the firmware from the computer at site without needing to open the controller box or bring the controller back for service.

Configuration Diagram

Security Control Room

xPortalNet

Alarm

Barrier Control

Siren Box

Computer

SNet

LAN   TCP / IP

Server Running xPortalNet & MS SQL

EM Lock / Door Sensor

Entry Reader

Exit Reader

Push Button

Wiegand / ABA reader

Elevator

Sensor

RS485 (max 1km distance)

MK801

MiO-S168

MiO-L32

MK801

MiO-R16

Car Park

EM Lock / Door Sensor

Entry Reader

Alarm

Sensor

Mimic Panel

Push Button

Exit Reader

Elevator

SNet Features

SNet 5 Base Controller

No.	Item	Feature
1	Max Door	5
2	Relay Output	8 (5 for Door Relay + 3 General Purpose)
		Relay Rating : 1A
3	Sensor Input	16 Supervised (As Door Status or General Purpose)
4	IP	Yes - LAN 100 Base-T
5	Reader	• MicroEngine Plato Readers : Max 10 (5 Entry + 5 Exit)
		• Wiegand / ABA Readers : Max 5
6	Comm Port	Yes
		• RS485 to Remote Interface Module
		• RS485 to Extension Boards with Output Mirroring
7	Card Number Length	Up to 16 Digits
8	Max Card DB	40,000 / 100,000 / 200,000 *
9	Max Transaction DB	100,000 / 200,000 / 200,000 *
10	Time Zone	255
11	Time Set	255
12	Floor Zone	255
13	Global Anti-Passback	Yes
14	Interlocking	Yes
15	Access Mode	1. Card + Pin
		2. Card Only
		3. Pin Only
		4. Facility Code
		5. Fingerprint Only
		6. Card + Fingerprint
		7. Pin + Fingerprint
		8. Automatic Lock Release
		9. Inhibit Access
16	IP Messaging Encryption	Yes - AES128
17	Alarm Monitoring Support	Yes
18	Extension	Up to 4 Extension Boards :
		SNet-E5D : 5 Door Extension Board
		SNet-E32R : 32 Relay Output Board
		SNet-E32S : 32 Supervised Input Board
		SNet-E248S : 24 Supervised Input & 8 Relay
		Output Board
		Max Extension Capacity :
		5 Doors / 128 Inputs / 128 Outputs
19	Support Remote Interface Module	Yes - Use RS485
		Door Interface Unit (Max 10) :
		MK801 Reader Interface
		I/O Controller (Max 10) :
		MiO-S168 – 16 Supervised Inputs / 8 Outputs
		MiO–R16 – 16 Relay Outputs
		MiO-L32 – 32 LED Driver for Mimic Panel Use
		Max Remote Capacity :
		10 Doors / 160 Inputs / 160 Outputs
20	Processor	ARM RISC Dual-Core Processor at 72MHz
21	Power Requirement	12V @ 500mA (Base Board Only)
22	Onboard LED / Buzzer	Yes
23	Remote Firmware Update	Yes - can be done through application software at site.
24	Controller Package PSU	12VDC @ 5A with 12AH Battery

* Depending on Model

SNet-E5D - 5 Door Extension Board
Add another 5 door support to the controller system, becomes a 10 door controller

No.	Item	Feature
1	Max Door	5
2	Relay Output	8 (5 for Door Relay + 3 General Purpose)
		Relay Rating : 1A
3	Sensor Input	16
4	Onboard Surge Suppressor	Yes
5	Power Requirement	12V @ 5A
6	Communication to Base Board	RS485
7	LED Indicator	Yes

SNet-E32R - 32 Relay Output Extension Board
Add support for lift access control and alarm output system
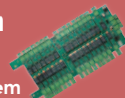
No.	Item	Feature
1	Relay Output	32
		Relay Rating : 1A
2	Onboard Surge Suppressor	Yes
3	Power Requirement	12V @ 2A
4	Communication to Base Board	RS485
5	LED Indicator	Yes

SNet-E32S - 32 Supervised Input Extension Board
Add support for supervised alarm inputs system

No.	Item	Feature
1	Supervised Inputs	32
		Able to detect line being bypassed, cut or triggered
2	Onboard Surge Suppressor	Yes
3	Power Requirement	12V @ 2A
4	Communication to Base Board	RS485
5	LED Indicator	Yes

SNet-E248S - 24 Supervised Input & 8 Relay Output Extension Board
Add support for supervised alarm inputs and Output system

No.	Item	Feature
1	Supervised Inputs	24
		Able to detect line being bypassed, cut or triggered
2	Relay Output	8
		Relay Rating : 1A
3	Onboard Surge Suppressor	Yes
4	Power Requirement	12V @ 2A
5	Communication to Base Board	RS485
6	LED Indicator	Yes

Plato Readers

Stylish and high quality card reader that provide flexible connectivity

Slim Card Reader

Model	Description
Plato-P80	Proximity Reader
Plato-C80	Mifare / CEPAS Reader

Slim Card Reader with Touch Sense Keypad & Colour Graphic LCD

Model	Description
Plato-P80KL	Proximity Reader
Plato-C80KL	Mifare / CEPAS Reader

Slim Card Reader with Touch Sense Keypad

Model	Description
Plato-P80K	Proximity Reader
Plato-C80K	Mifare / CEPAS Reader

Remote Interface Module

Flexibly allows you to extend the capacity and distance

Door Interface Unit

MK801
Adds remote door interfacing capacity

No.	Item	Feature
1	Comm Port	2 RS485 1 to Controller 1 to MicroEngine Readers
2	Relay Output	1 (Relay Rating : 1A)
3	Readers	2 (1 Entry / 1 Exit) Onboard RS485 Port for Connecting to MicroEngine Readers & Wiegand / ABA Port for Connecting to 3rd Party Readers
4	Onboard Surge Suppressor	Yes
5	LED Indicator	Yes
6	Power Requirement	12V @ 0.5A

I/O Controller

MiO-L32
Adds remote support for LED drivers for mimic panel applications

No.	Item	Feature
1	Comm Port	1 RS485 (to Controller)
2	LED Driver Outputs	32 (20 mA)
3	Digital Input	2 (for Interfacing with Key-Switches)
4	Onboard Surge Suppressor	Yes
5	LED Indicator	Yes
6	Power Requirement	12V @ 0.5A

MiO-S168
Adds remote support for supervised inputs and relay outputs

No.	Item	Feature
1	Comm Port	1 RS485 (to Controller)
2	Supervised Inputs	16 Able to detect line being bypassed, cut or triggered
3	Relay Output	8 (Relay Rating : 1A)
4	Onboard Surge Suppressor	Yes
5	LED Indicator	Yes
6	Power Requirement	12V @ 0.5A

MiO-R16
Adds remote support for relay outputs, can be used for lift access applications

No.	Item	Feature
1	Comm Port	1 RS485 (to Controller)
2	Relay Output	16 (Relay Rating : 1A)
3	Onboard Surge Suppressor	Yes
4	LED Indicator	Yes
5	Power Requirement	12V @ 0.5A

xPortalNet *Security Management Software System*

Main Features

No.	Item	Features
1	Client Server	Yes - Up to 20 Clients
2	System	Door Access / Lift Access / Car Park / Alarm Monitoring / Guard Tour
3	Card Holder	200,000 (16 Digits)
4	No. of Door / Readers	1024 Doors / 2048 Readers
5	No. of Inputs / Outputs	1024 Inputs / 1024 Outputs
6	Time Set / Time Zone	1024
7	System Users	Unlimited
8	Software Access Control	Yes - User Configurable Command Level Access Control
9	Floor Plan System	Yes - Dynamic & with Camera Icon
10	Database Supported	MS SQL Server / Oracle
11	OS	• Windows XP / Vista / 7 Professional (32/64 bits) • Windows Server 2003 / 2005 / 2008 (32/64 bits)
12	Microsoft .Net	Yes
13	Communication Supported	RS232 / RS485 / Modem / UDP / TCP / HTTP
14	Controller Supported	• SNet - IP 5/10 Door with Alarm Monitoring Flexible Architecture Controller • CNet - IP 5/10 Door with Alarm Monitoring Distributed Controller • CPRO - 5/10/20 Door Controller • CPROA - CPRO with Alarm Monitoring • CPROL - Lift Access Controller • M2000i - IP 2 Door Controller • GTR1200L - IP Single Door Card Reader Controller • GT3200L - IP Single Door Fingerprint + Card Reader Controller • M1000X - Single Door Card Reader Controller
15	Time Attendance	Yes - Non-Overnight
16	Real Time Export	Yes - User Configurable
17	Model	xPortalNet/3, xPortalNet/5, xPortalNet/20
18	Web Based	User xPortalWEB with Full Web Based UI and Online Monitoring Screen

Add On Modules Features

No.	Item	Features
1	CCTV Integration	With Major Brand DVR / NVR • Transaction Based Live Video Pop-Up • Active Recording Trigger of DVR / NVR Based on Configurable Transactions • Video Icon on Floor Plan • Search Video through System Transaction Log
2	Guard Tour	Online Guard Tour System • 128 Routes Using Reader / Input Point • Alarm Generation
3	Visitor Management System	Visitor Tracking • Multi-Client Software for Visitor Registration and Tracking • Online Visitor Screen / Visitor Blacklist / Alarm • Interfacing to IC Reader / Passport Reader • Camera / Scanner Capture Support • Visitor Pass • Assign Card from Card Database with Auto Sign Out • Transaction Report
4	Photo Badging System	• Photo Badge Design / Template Creation • Automatic Photo Badge Image Creation by Card Holder Info
5	Multi-Server System	• Server Application at Different Computers • Sync DB & Event Log with a Master Server
6	User Partitioning	DB / View Partition Assignment by System User
7	Web Time Attendance	• Web Browser Interface • Leave Management / through Web Browser
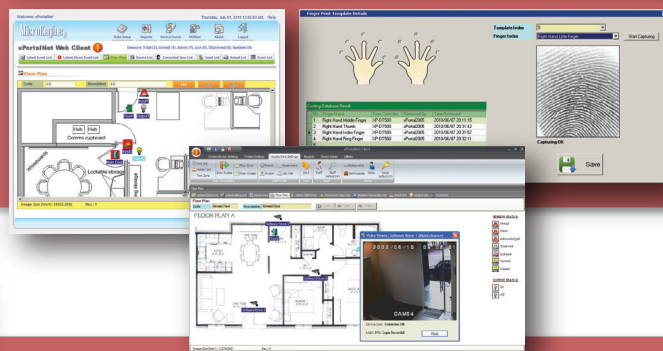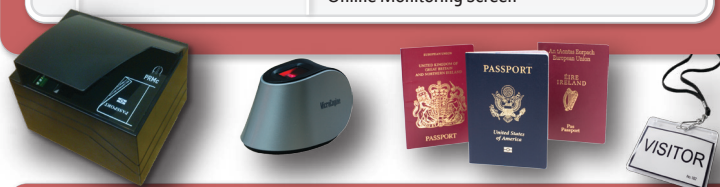
Ordering Information

No.	Item	Features
1	XP-SNet5	IP 5 Door SNet Controller
2	XP-SNet10	IP 10 Door SNet Controller
3	XP-SNet-E5D	5 Door Extension Board
4	XP-SNet-E32R	32 Relay Output Extension Board
5	XP-SNet-E248S	24 Supervised Input / 8 Relay Output Extension Board
6	MiO-S168	16 Supervised Input / 8 Relay Output Alarm Controller
7	MiO-R16	16 Relay Output Controller
8	MiO-L32	32 LED Driver Controller (for Mimic Panel)
9	MK801	Door Interface Unit
10	Plato-P80	Proximity Reader
11	Plato-P80K	Proximity Reader with Touch Sense Keypad
12	Plato-P80KL	Proximity Reader with Touch Sense Keypad and Colour LCD
13	Plato-C80	Mifare / CEPAS Reader
14	Plato-C80K	Mifare / CEPAS Reader with Touch Sense Keypad
15	Plato-C80KL	Mifare / CEPAS Reader with Touch Sense Keypad and Colour LCD

No.	Item	Features
16	MPS-320	Power Supply Unit with Charger and Low Power Cutoff
17	MAS-600EMS	MicroEngine EM Lock 600lbs
18	MAS-1200EMS	MicroEngine EM Lock 1200lbs
19	MAS-PB33	MicroEngine Wide Exit Button
20	MAS-MC	MicroEngine Door Sensor
21	MPC-100	Proximity Card
22	MPC-S1K	Mifare Card 1Kb
23	MCI-XPNET	xPortalNet Security Management Software • Multi-Client • Based on .Net Technology
24	MCI-XPWEB	xPortalWEB Web Based Security Management Software • Web Based • Based on .Net Technology • Full Web Based Interface for System Management

Configuring the System

The system is powerful and highly configurable, kindly contact our representatives to assist you to configure a system that suits your requirements.

For enquiries, please contact:

Specifications subject to change without prior notice.