EXPANSE™
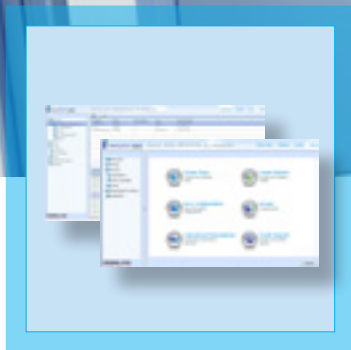
BY ROSSLARE

Distributed Access Control System
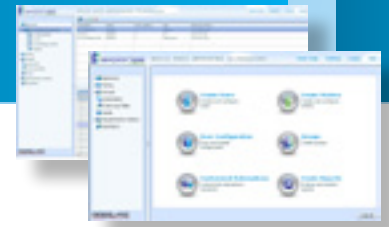
ROSSLARE
SECURITY PRODUCTS

Create your own peace of mind.

- **High Capacity, Fast and Powerful**
- **Distributed Architecture**

  Highly scalable – expandable to facilitate extremely large applications – Extended reliability

- **Web Browser-Based System Management**

Scalable & Powerful

INNOVATIVE APPROACH TO ACCESS CONTROL

Today's need for large scale Access Control systems has grown to include more commercial, industrial and government facilities such as airports, hospitals, office buildings, and more. System designers must find a security solution that is well suited to their needs yet is reasonably priced. Traditional, centralized systems cannot solve this conflict, as due to unnecessary redundancy, they are often limited in capacity and expensive.

ExpansE is a new and innovative distributed access control system, designed to provide a suitable security solution at a competitive price.

CENTRAL VS. DISTRIBUTED SYSTEM ARCHITECTURE
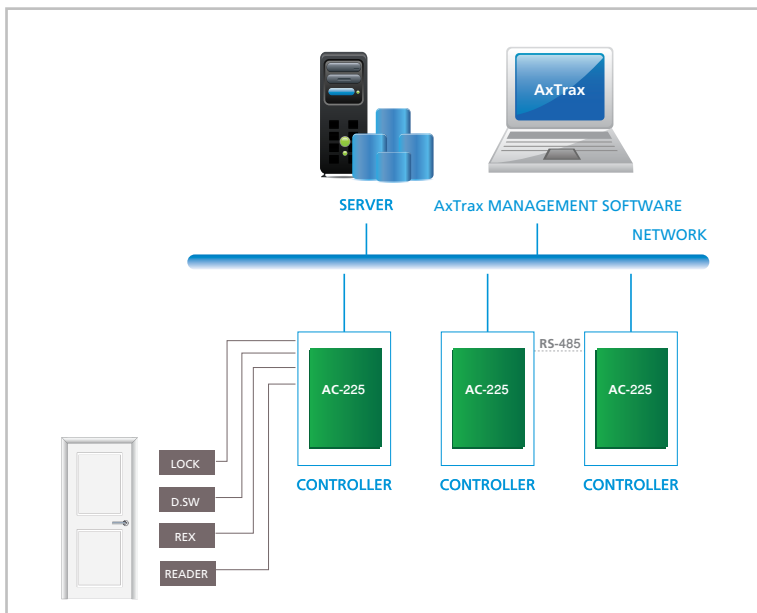
Access control systems typically use multiple controllers in order to avoid the risk of a single point of failure with a multi-door controller. These systems duplicate the hardware many times in order to cover large applications, and are often expensive, since they involve complicated and costly installation, configuration, networking, and cabling. Furthermore, since multiple controllers must be synchronized, their performance and system capacity are limited, and integration with third-party systems is complicated.
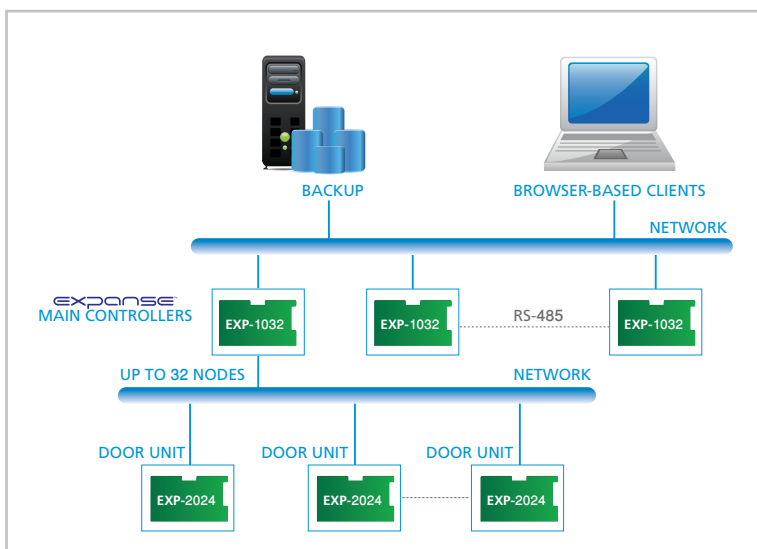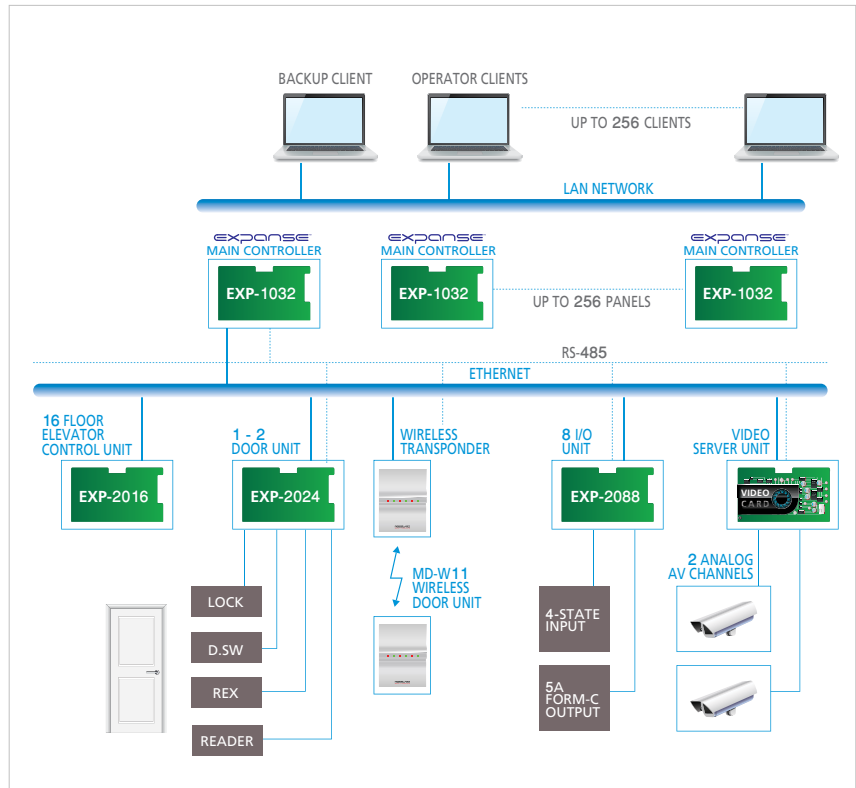
In a distributed system, the main controller is physically separated from end units that manage the door elements (readers, locks, REX buttons, switches and other I/Os) – substantially reducing cabling work and simplifying the installation process. Scalable architecture allows systems to expand from a single door to thousands of doors in multiple sites, without unnecessary redundancy, and is easily integrated with external systems such as DVRs, Intrusion Alarms, and others.

ExpansE'S REVOLUTIONARY DISTRIBUTED ACCESS CONTROL SYSTEM WAS DESIGNED TO PROVIDE MEDIUM TO LARGE ENTERPRISES WITH A SOLUTION THAT IS BOTH POWERFUL AND ECONOMICAL

HIGH CAPACITY, SCALABLE , COST EFFECTIVE

The distributed platform, since not dedicated to door control or limited to a set number of doors, can be used for other applications such as security, automation and more.

Targeted for enterprises , this topology offers several advantages, including significantly higher performance and capacity on account of redundancy reduction; cost effectiveness, where the more doors and/or interfaces connected to the system, the more cost-effective it is; application flexibility, not limited by physical limitations the system supports various applications in its current design and has the benefit of implementing future additions, such as additional door units, I/O interfaces, security and alarm management, native support for video interfaces and much more.


WEB BROWSER-BASED USER INTERFACE

ExpansE's built-in web-application and networking capabilities provide faster and easier setup – software installation and computer configuration are not required. You control all system configuration options as well as additional services, including real-time monitoring, from any panel and computer on the network.

The ExClouds server application complements the system with advanced reporting capabilities.
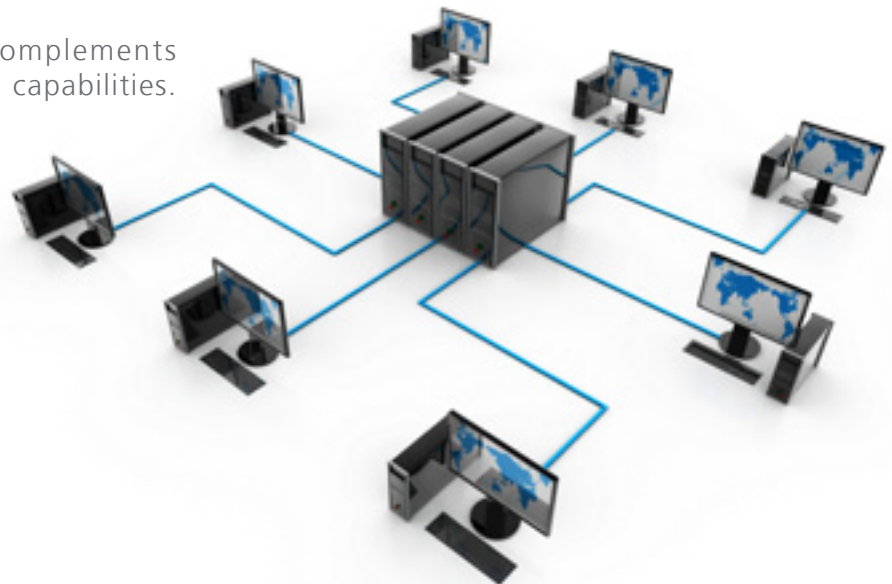
QUICK TO INSTALL, EASY TO USE

Easy to Design

ExpansE's flexible architecture, configurations, and variety of control options, along with an intelligent, easy-to-configure decision-making engine, make it simple to plan a wide range of deployment options. The system's core architecture – the controller – can be duplicated and networked many times, managing more than 100,000 readers, 250,000 I/O with 128,000 users (per controller). These panels can be networked over many sites, including distributed locations. Each controller manages dedicated end units, which directly control doors and other system elements, and can be easily duplicated to any required location.

Easy to Implement

ExpansE offers a range of implementation options, including:

- Pre-networked and pre-powered multiple-tray cabinets
- Standalone, networked, powered enclosed end units with power backup capabilities
- A selection of power and battery back-up solutions

Easy to Install

For a quick and easy installation, all of ExpansE's system components are "plug and play" using communication options such as Ethernet and RS-485, with a minimum of cabling. Neither software installation nor computer configuration are required. System configuration is straightforward and can be configured in a short time, and without specialized training.

Easy to Operate

ExpansE's user-friendly web interface facilitates management of access control, video, and alarm monitoring from any panel or web browser, and does not require highly skilled operators. Additionally, the system's full client-server architecture allows multiple-client usage at different user levels.

STATE OF THE ART TECHNOLOGY

At the forefront of technology, ExpansE's modern system design is based on the most advanced processing, communication, and powering technologies, including:

- Built-in Web server for native networked and Internet environment
- Powerful ARM9 architecture based processor with built-in Linux™ operating system
- P2P Connection between all networked panels
- Web application user interface based on Flash technology
- 3-Tier networking

MAIN COMPONENTS AND OPTIONS
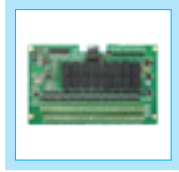
ExpansE Networked Controller
EXP-1032
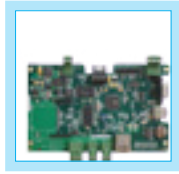
- Supports 32 doors / 64 readers, up to 128 input and outputs, and up to 128,000 users per controller
- 100,000 history event log size
- On-board Ethernet, RS-485 and USB 2.0 communication ports
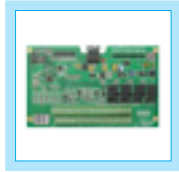
16-Relay Elevator Control Unit
EXP-2016

- 16 Form-C relay outputs, ideal for elevator control applications
- RS-485, Ethernet (specific models) communication ports
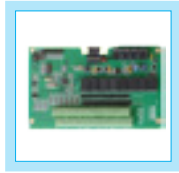
Dual Reader Door Unit
EXP-2024

- 2 reader ports -- supports Wiegand 26 bits and other standard and non standard formats
- 4 four-state inputs, 4 form-C relay outputs and a sounder output
- RS-485, Ethernet (specific models) communication ports

8 I/O interface
EXP-2088

- 8 Four-State inputs and 8 Form-C outputs
- RS-485, Ethernet (specific models) communication ports

Housing, Power and Networking Options

9-Board Tray Cabinet Housing

ME-00

Houses the controller and up to eight additional secondary units in one metal housing, prenetworked, with power supply and battery back-up*

Single Board Self-Powered Metal Enclosure

ME-01

Self-powered metal enclosure for end units with 7Ah battery back-up*

Single Board Self-Powered Plastic Enclosure

ME-12

Compact plastic self-powered enclosure for end units with 7Ah battery back-up*

Compact Single Board Self-Powered Enclosure

ME-14

Compact plastic enclosure for end units

*Batteries not included

For more information about the system, additional component, and options, please contact a Rosslare representative.

SPECIFICATIONS

MAIN FEATURES

Users Capacity	Up to 128,000 users per controller
End units per controller	Up to 32 units per controller
Doors	Up to 32 IN/OUT doors/64 readers per controller
Inputs	Up to 256 Four–State Inputs per controller
Outputs	Up to 512 Form-C relays per controller
Event Log size	100,000 history events per controller
Communication methods	TCP/IP and/or RS-485 between controller and end units
Time Zones	512 multi segmented
Holidays	128 dates
Controller Capacity	Up to 2048 controllers with intercommunication

CONTROLLER SPECIFICATIONS

Processor	ARM9 based Microcontroller
Processor Clock	240MHz
Ethernet	10/100 Base T RJ-45 Ethernet connection IEEE802.3
On-Board Connections	USB2.0, RS-485, Ethernet
Operating System	Embedded Linux™
Supported Browsers	IE (version 6.0 and above), Firefox 3.0, Google Chrome, others

END UNITS

EXP-2024 Dual Reader Door Unit	2 Readers, 4 Inputs, 4 Outputs and Sounder connection, RS-485 connection
EXP-2088 8 I/O Interface	8 Four-State Inputs and 8 Form-C Outputs, RS-485 connection
EXP-2016 16 Relay Elevator Control Unit	16 Form-C relays, RS-485 connection – can be used as elevator control

ABOUT ROSSLARE SECURITY

Rosslare Security Products, a division of Rosslare Enterprises Ltd. manufactures high-quality security products worldwide since 1980. The company's three main lines: Access Control, Intrusion Detection and Guard Patrol, together with a growing product range have transformed Rosslare Security into a major force in security. Rosslare holds itself to the highest standards of customer service and manufacturing (ISO 9001:2008, ISO 14001:2004). The company complies with the EU Directive 2002/95/EC on Restriction of Hazardous Substances (RoHS).

ROSSLARE
SECURITY PRODUCTS

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