



VAX Access Control Overview

April 16, 2020

Agenda

VAX Overview

Hardware Features

Software Features

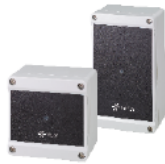
VAX Integrations

Roadmap



VAX – Vicon's Access Control System

Vicon's VAX access control technology is the cutting-edge physical security solution to secure, control and audit assets.





VAX Access Control Technology

VAX Access Control Hardware Overview

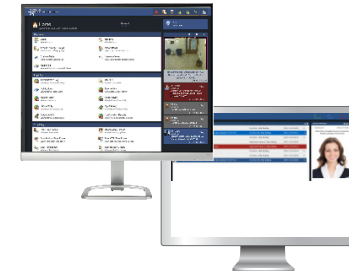


Order VAX software pre-installed on a Vicon certified Windows 10 Server or install it on a standalone PC.



(Available in white)

Choose from a variety of controller options for doors, I/Os, and elevators.



User-friendly navigation allows you to manage and effectively report and act on critical security events.

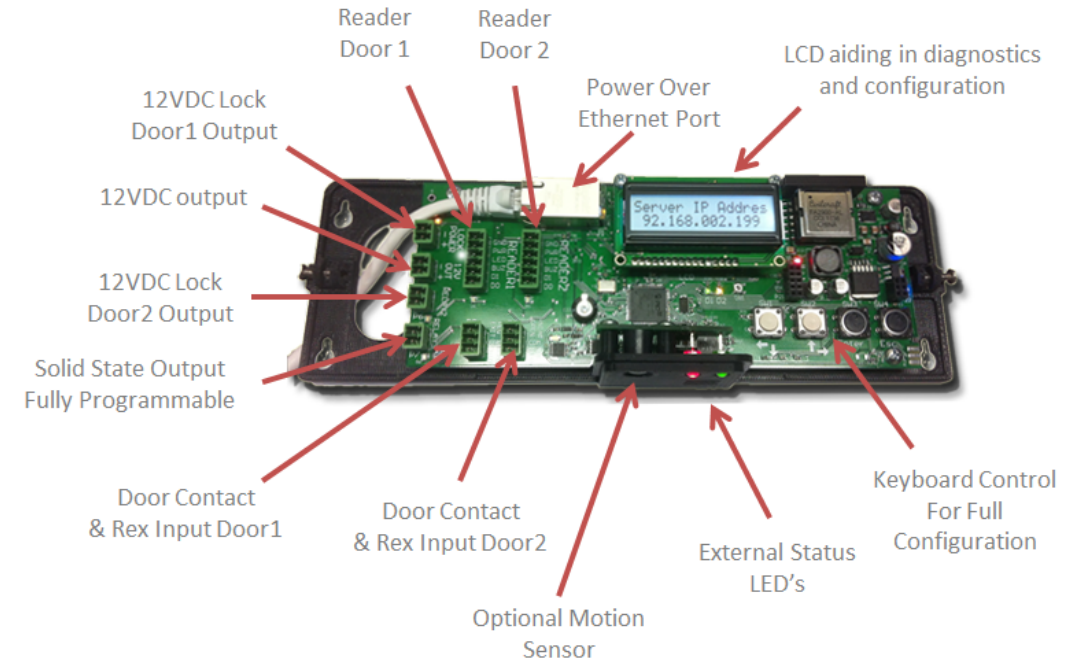
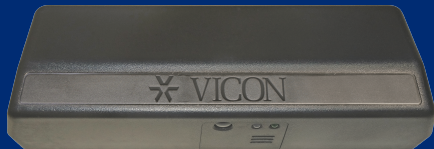


Choose from a variety of secure Card/Reader systems. Keep existing hardware in place.



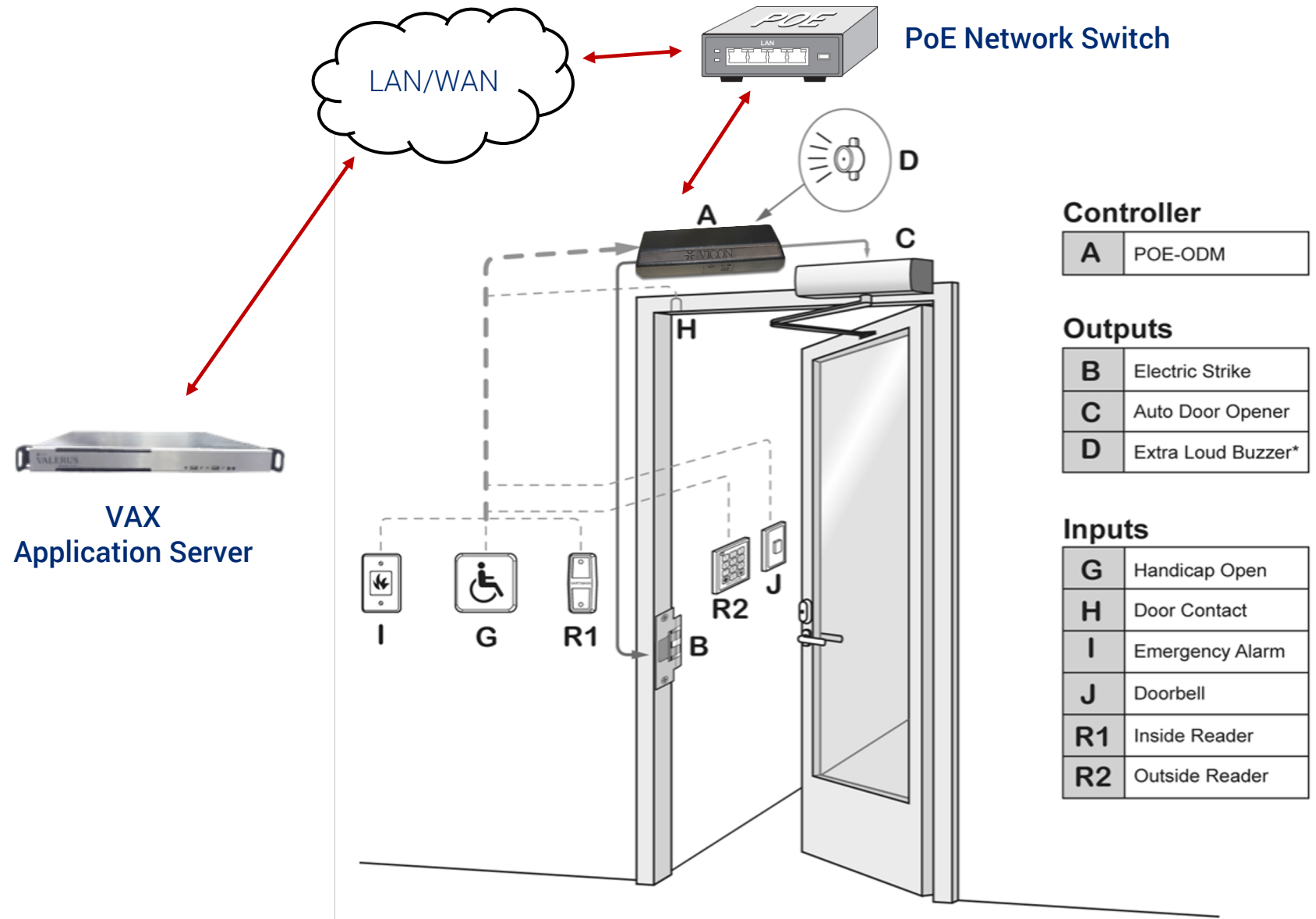
HTML5 browser interface. Supports all computing/mobile devices.

VAX One/Two Door PoE IP Controller



VAX

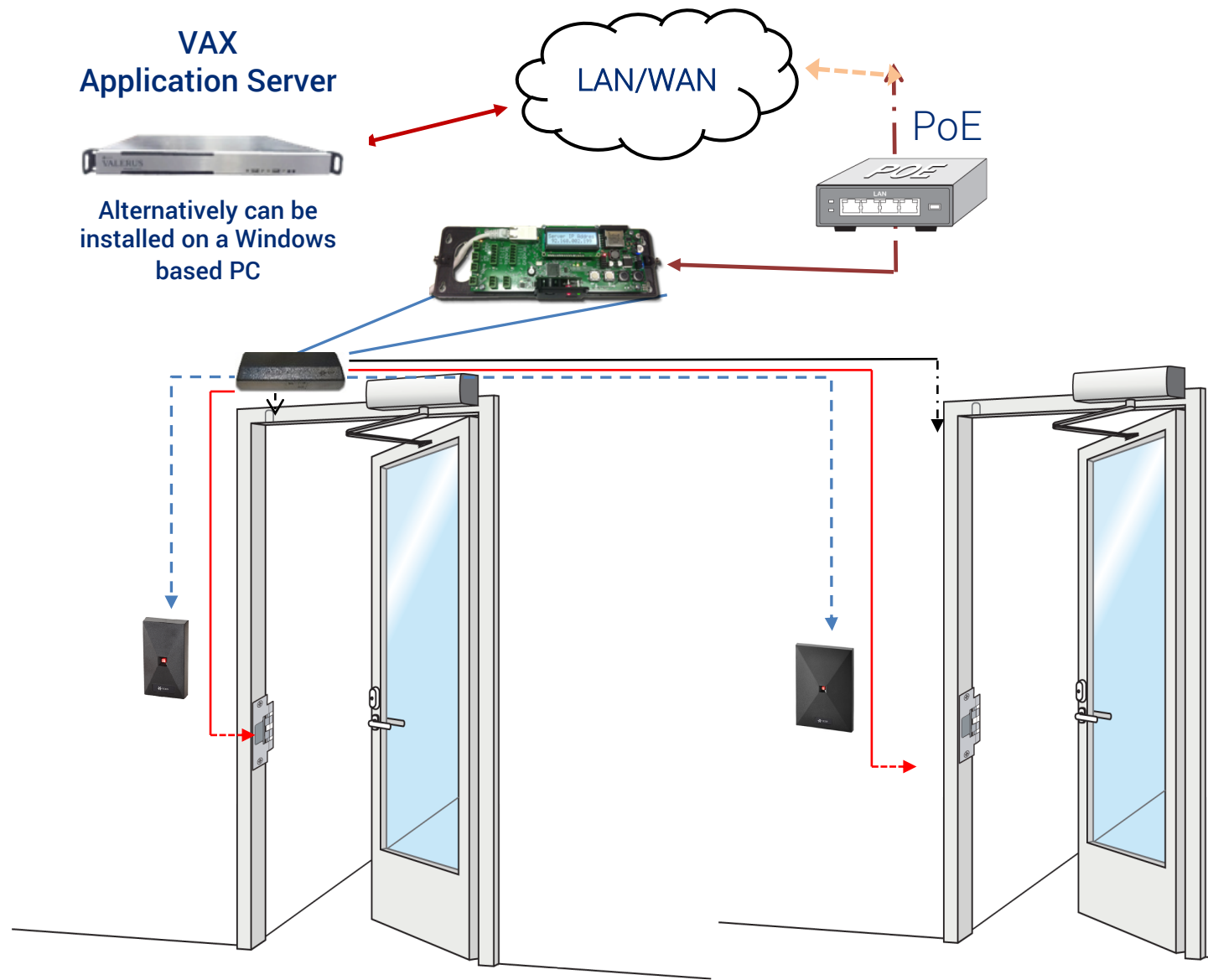
Over-the-Door Controller Layout



*Optional Internal Extra Loud Buzzer

VAX

Two Door Controller Layout



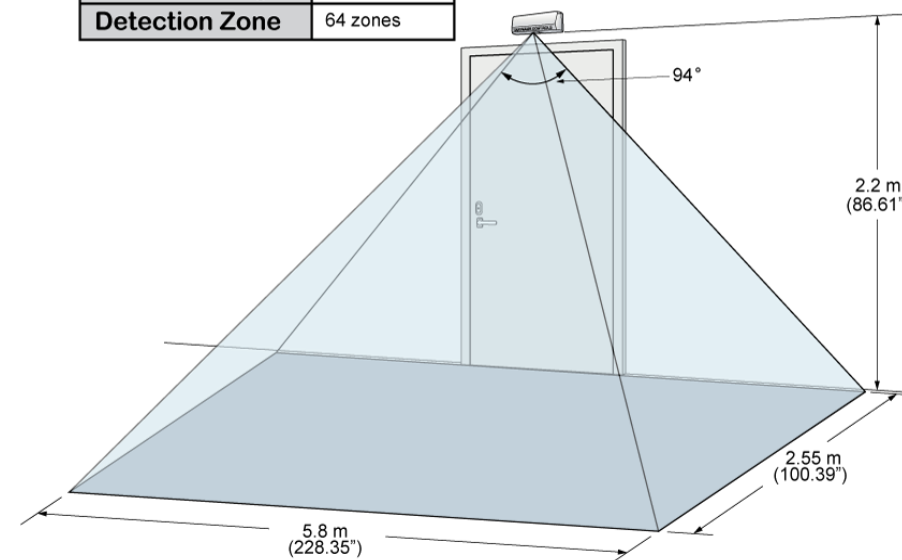
Over-the-Door Controller Embedded REX



Motion Sensor

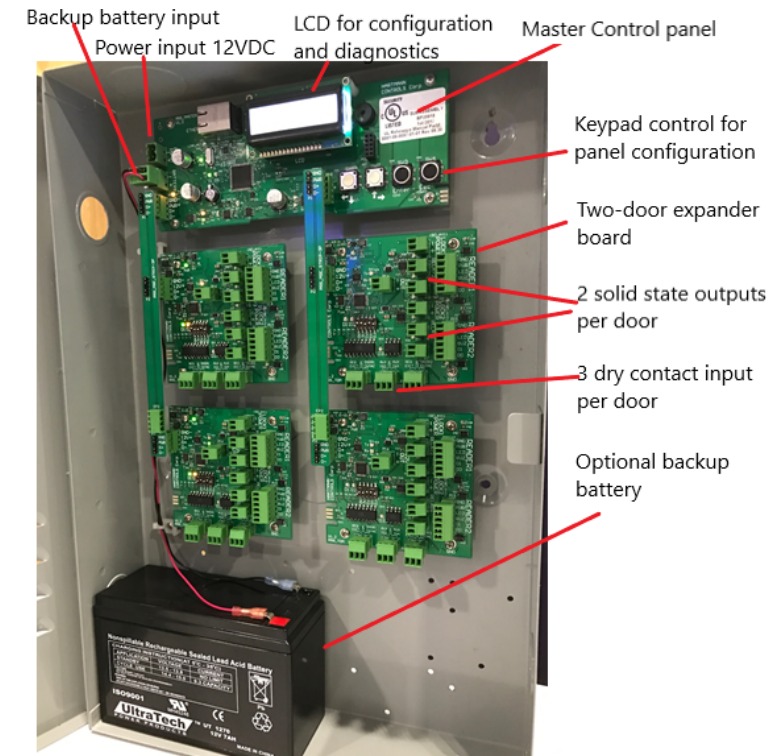
Specification

Sensor Type	PIR
Detection Range	5 m
Detection Angle	H: 94°, V: 82°
Detection Zone	64 zones



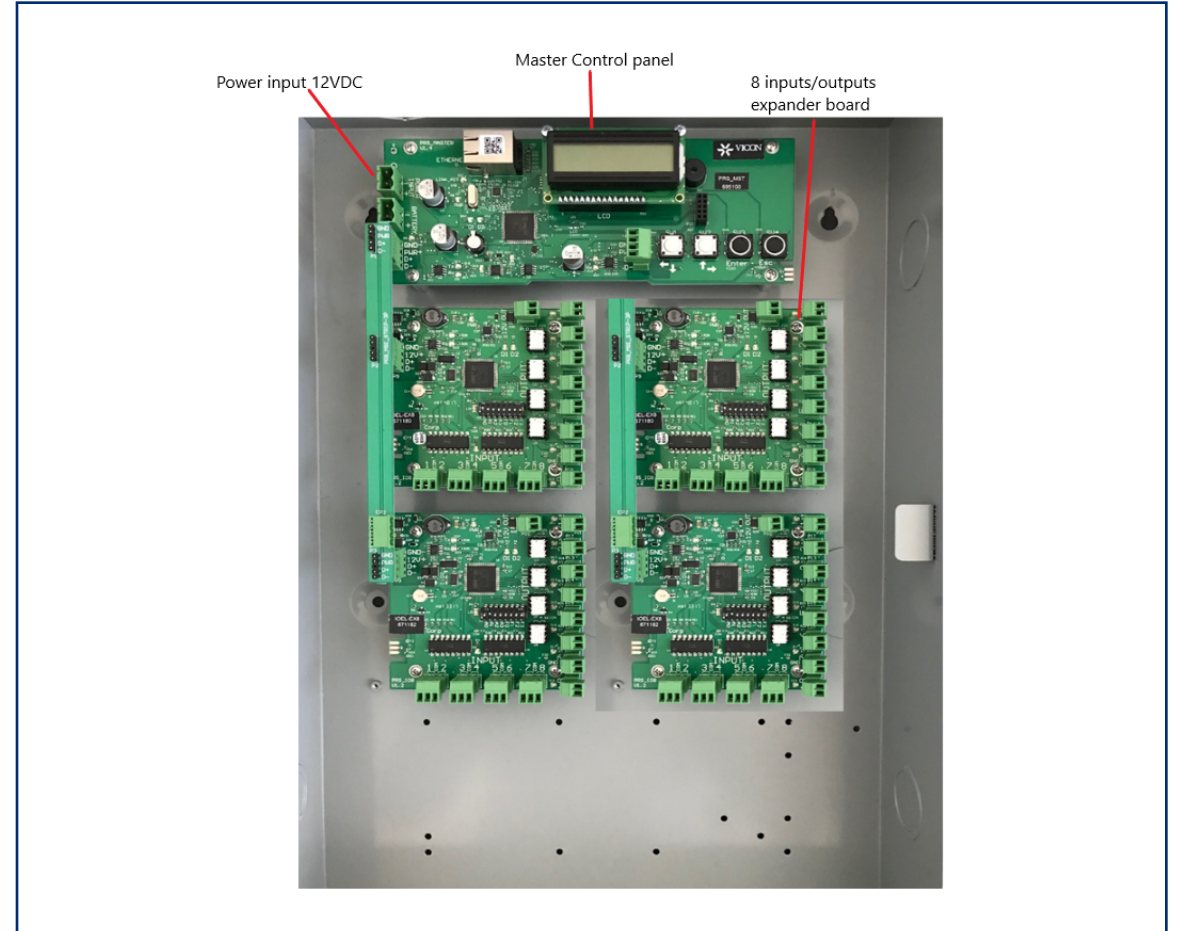
Multi-Door Kit Controller

The multi-door master controller is used when centralized control of multiple doors is required.



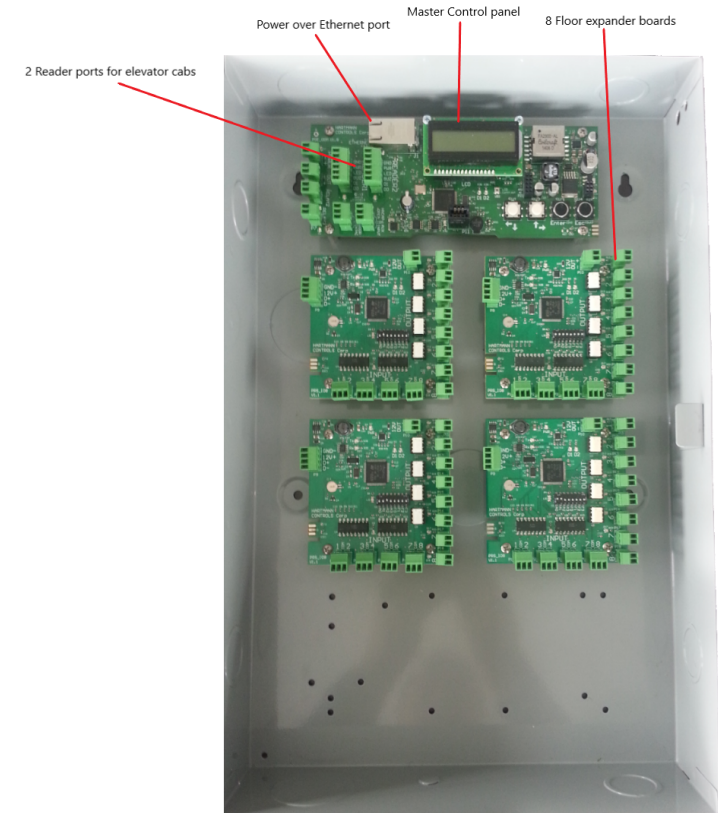
I/O Controller

I/O controller is used to monitor inputs and switch on board relays.



Elevator Controller

Elevator controller is used to program elevator cab card readers access to specific floors.



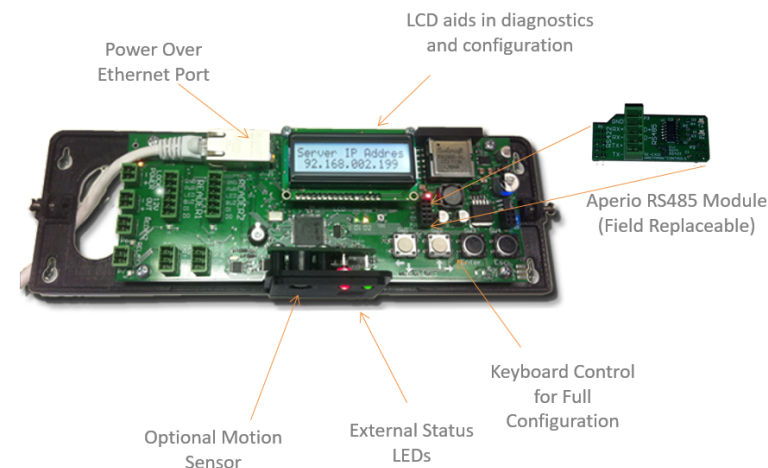
Aperio Controller

Aperio Controller is used to integrate
VAX with Assa Abloy Aperio wireless doors

ASSA ABLOY APERIO INTEGRATION



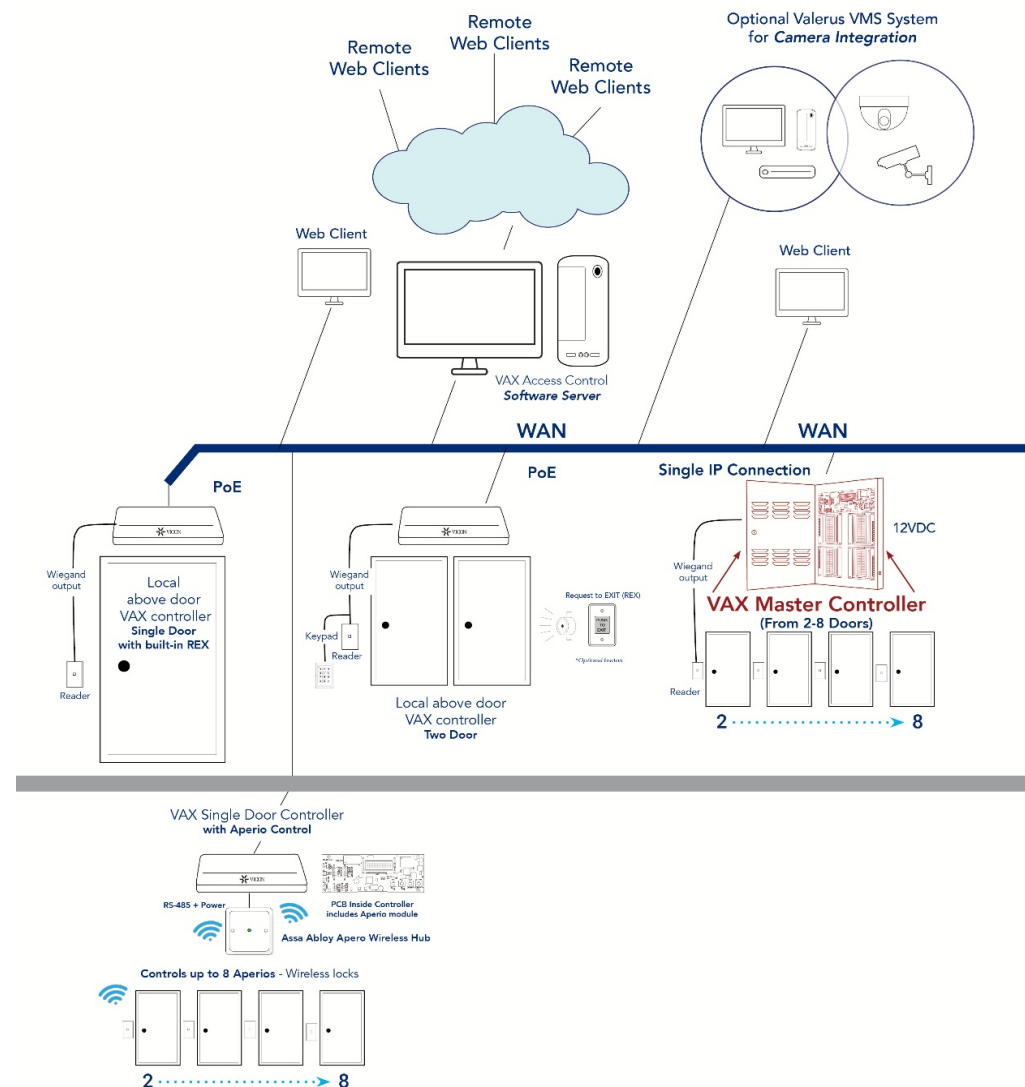
Door Controller Layout With RS485 Module For Aperio



Topology - Typical Installation Example

This is a basic overview of how VAX is connected and fully integrated with a video system through multiple sites.

Complete Flexibility - VAX is available with several controller configurations for ease of installation and reduction of overall costs. Multiple combinations of controller types can be installed at each site.



VAX Reader Portfolio



Proximity Readers (125 kHz)

- Readers come in variety of form factors
- Read range from 5 to 8 inches
- Dual authentication keypad reader
- Reads all standard Prox card format (e.g., 26 to 75 bits)



Smart Card Readers (13.56MHz)

- Secure encrypted transmission
- Reads MIFARE DESFire EV1, EV2 SmartCard protocol cards



Bluetooth (BLE) Readers

- Secure Bluetooth and 13.56MHz SmartCard combined Reader
- Bluetooth for Smartphone virtual credential. Read range up to 15ft.
- Reads MIFARE DESFire EV1, EV2 SmartCard protocol cards



Long Range Readers and Transmitter (433 MHz)

- Secure encrypted transmission up to 800 ft.
- Transmitter sends credential to Reader – ideal for parking gate applications

Smartphone Wallet App/Mobile Ready Readers

Download the app to activate mobile credentials



Securely Stores Access Credentials

BENEFITS

- Supports iPhone and Android-based mobile devices with BLE enabled.
- Easy, one-time registration without disclosure of private information.
- Protected behind a smartphone's security parameters.



BENEFITS

- Reads Vicon mobile credentials as well as traditional contactless smartcards.
- Supports both sector and card serial number (CSN) reads.
- Supports industry standard 26-bit Wiegand as well as custom Wiegand formats and offers advanced data protection, including MIFARE® DESFire® EV1 and EV2 applications, provides support to multiple layers of AES encryption.

VAX Software Solution



VAX Software: Easy to Use & Robust

The VAX system was designed to be efficient, flexible and user friendly, but it is also a powerful, robust product that scales well.



VAX offers web-based access control software, delivering an enterprise grade solution, which allows users to control and manage the entire system from anywhere.



Vicon's VAX Offers Unlimited Scalability

The VAX access control components offer you a perfectly flexible system for medium to large sized projects. Thanks to the scalability of the hardware the system grows according to your security needs.



VAX is Unlimited!

and Versatile!



VAX Software Menu

- VAX's browser-based menu is easy to navigate. All menu items as well as real time notifications are presented on a single page.
- Valerus Video integration associate's cameras to doors and displays live/playback video upon specified event at door.

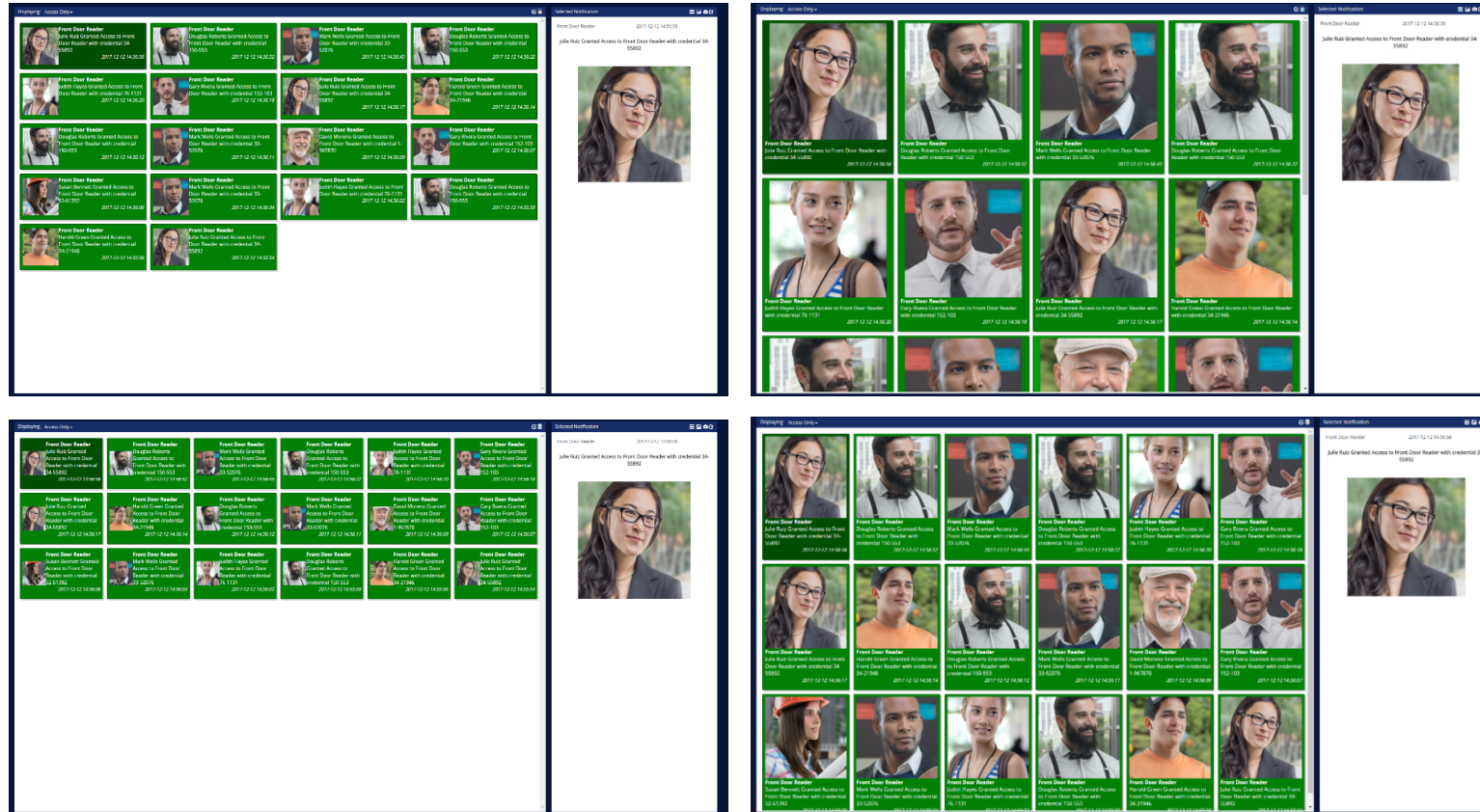
The screenshot displays the VAX Software Menu interface, which is a browser-based application for managing access control systems. The interface is organized into several sections:

- Home:** Welcome to your Vicon Access System. Managed By Vicon Security.
- Day To Day:** A grid of icons for daily management tasks:
 - Users:** View all users
 - Access Privilege Groups:** View access privilege groups
 - Custom Fields:** Manage users custom fields
 - Monitoring:** View realtime alerts and notifications
 - Camera Matrix:** View multiple cameras in a grid
 - Holidays:** View holidays
 - Import Cards:** Import card holders from csv
 - Camera Viewer:** View cameras from camera system
 - APB Status:** View anti-passback status
 - Maps:** View real-time map
- Reporting:** A grid of icons for reporting and monitoring:
 - Administrative Log:** View historical admin activity
 - Notifications:** View historical notifications
 - Muster Report:** View muster report
 - Elevator Activity:** View historical elevator activity
 - Input Activity:** View historical input activity
 - Configuration Reports:** View system configuration details
 - Time Tracking:** Track users working hours
 - User List:** View list of all users
 - Door Activity:** View historical door activity
 - Floor Activity:** View historical floor activity
 - User Activity:** View historical user activity
 - Output Activity:** View historical output activity
 - Action Plan Activity:** View historical action plan activity
- Scheduling:** A grid of icons for scheduling and time zones:
 - Door Time Zones:** View door time zones
 - Door Holiday Time Zones:** View door holiday time zones
 - User Time Zones:** View user time zones
 - User Holiday Time Zones:** View user holiday time zones
 - Floor Holiday Groups:** View floor holiday groups
 - Floor OTR Time Zones:** View floor one time run time zones
 - Output Time Zones:** View output time zones
 - Input Holiday Time Zones:** View input holiday time zones
 - Door Holiday Groups:** View door holiday groups
 - Door OTR Time Zones:** View door one time run time zones
 - User Holiday Groups:** View user holiday groups
 - Floor Time Zones:** View floor time zones
 - Floor Holiday Time Zones:** View floor holiday time zones
 - Input Time Zones:** View input time zones
 - I/O Holiday Groups:** View I/O holiday groups
 - Output Holiday Time Zones:** View output holiday time zones

On the right side of the interface, there is a vertical list of notifications and status updates, including:

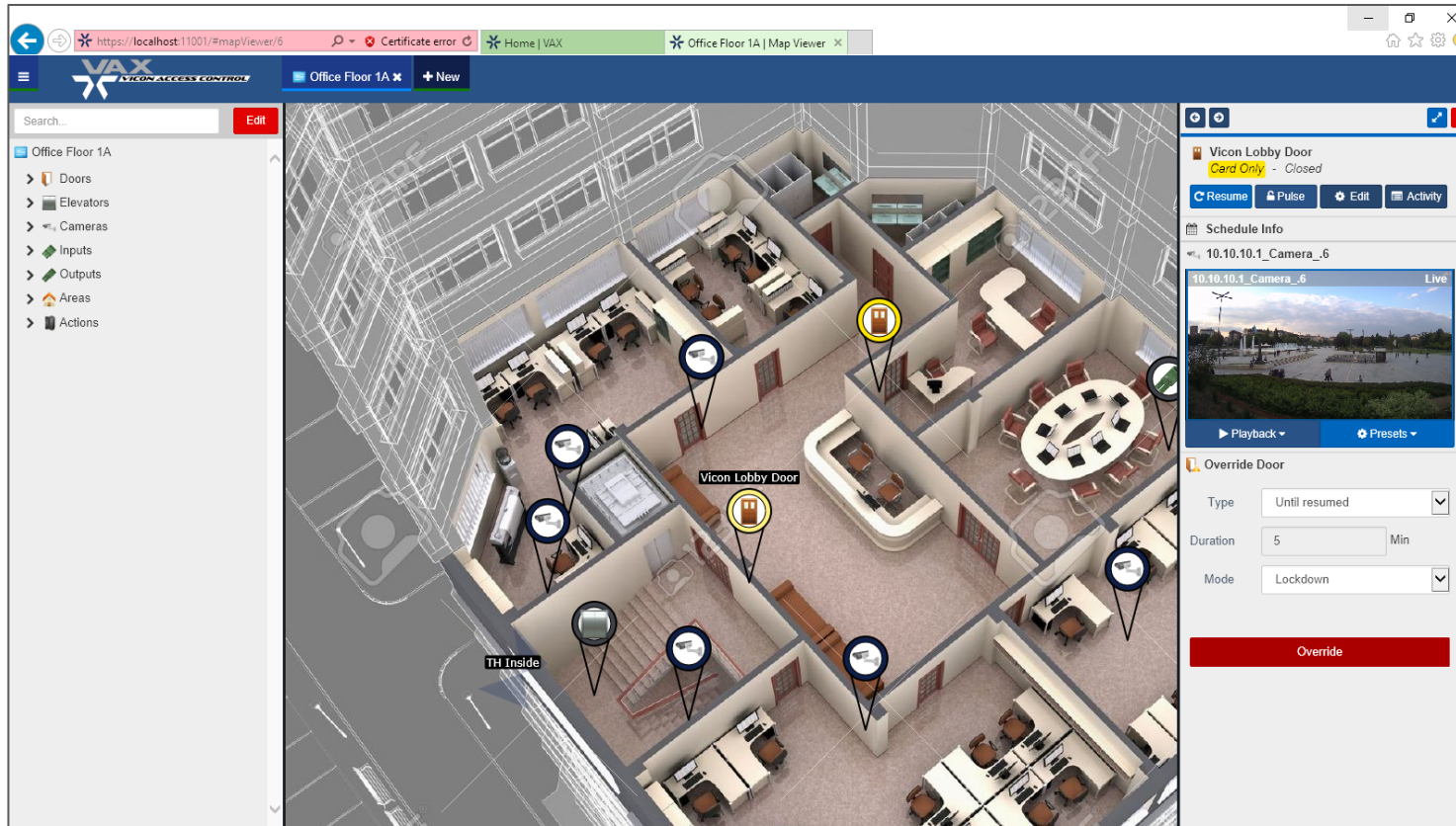
- Door Vicon Demo Door is Now Locked** (2020-01-09 11:03:58)
- Vicon Demo Door** Door Vicon Demo Door is Now Locked (2020-01-09 11:03:58)
- Vicon Demo Door** Door Vicon Demo Door is Now Unlocked (2020-01-09 11:03:51)
- Vicon Demo Door** Vicon Demo Door has resumed from an overridden state (2020-01-09 11:03:43)
- Vicon Demo Door** Vicon Demo Door has been overridden. Current state is Lockdown (2020-01-09 11:03:38)
- Vicon Bluetooth Reader** Adam Smith Denied Access to Vicon Bluetooth Reader due to Invalid Card or Pin with credential 33-1181 (2020-01-09 11:01:31)
- Vicon Demo Door** Door Vicon Demo Door is Now Locked (2020-01-09 11:01:31)
- Vicon Demo Door** Door Vicon Demo Door is Now Unlocked (2020-01-09 11:01:28)
- Vicon Demo Door Reader** Grace Chao granted access to Vicon Demo Door Reader due to master privilege with credential 115-2000 (2020-01-09 11:01:26)
- Vicon Demo Door** Door Vicon Demo Door is Now Locked (2020-01-09 11:01:23)
- Vicon Demo Door** Door Vicon Demo Door is Now Unlocked (2020-01-09 11:01:18)

Monitoring Menu Offers Flexible Notification Views including Video Verification



Flexible door reader notification view options include horizontal tiles, horizontal large tiles, vertical tiles or vertical large tiles

VAX Maps



Set icons for a door, elevator, input, or output allow you to see the real-time state (e.g., *Card Only access*) of that object, associated video, and gives you Override control

VAX Action Engine

- High performance engine allows simultaneous action executions and scalability limited only by the hardware it's running on
- Intuitive, easy to use action plan editor allows you to create complex action plans in minutes
- Mix and match over 40 customizable actions to create complex branching action plans to meet your business needs. Includes HTTP requests, door overrides, video notifications, and emails actions
- Highly flexible action plans allow for variables and arithmetic operations with little programming or scripting knowledge required
- Flexible trigger engine allows you to trigger action plans from door, input, output state changes, or trigger action plans upon scheduled times

Action Control Engine - Customizable Examples



Turn on Light If There Is Someone in the Warehouse

DESCRIPTION

A busy warehouse wants to let crane and forklift operators know that there are persons inside the warehouse. There is a light visible from anywhere in the warehouse. All entrances and exits have back to back readers. By using ACE with anti-pass back we are able to turn the light off and on based on the amount of persons inside the warehouse.



Triple Swipe on Duress Code Lockdown

DESCRIPTION

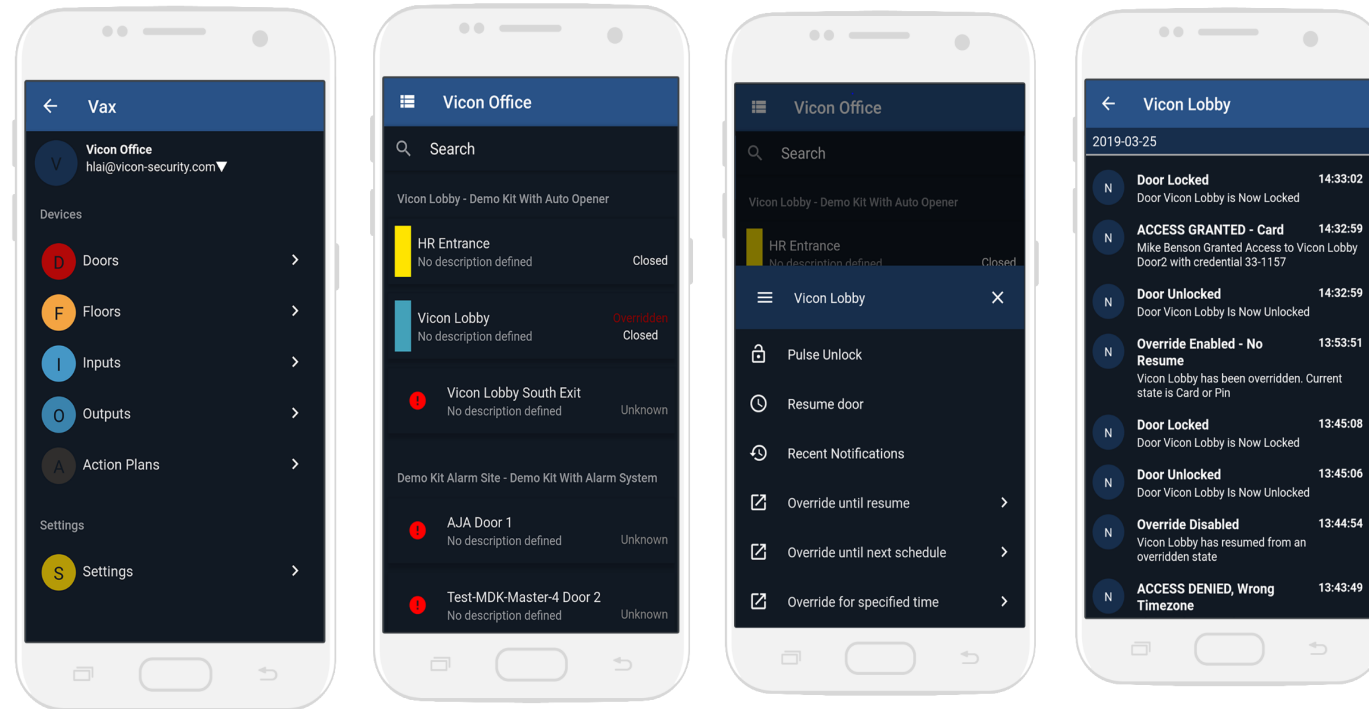
School wanted building wide lockdown. Normally this would require hardwired connections between all control panels, but after a risk analysis they decided to use ACE. ACE is able to watch for triple swipe or duress codes at any reader and perform the lockdown.



Local Video Notification and Email Alert

DESCRIPTION

A property manager in New York wanted to get video pop of door cameras that have unauthorized card reads at night and email alert



VAX Mobile App



- VAX Mobile App for Android and iOS
- Save and choose multiple VAX sites
- Choose and Override doors, elevator floors, inputs, and outputs
- View recent Door notifications
- Run Action Plans

VAX Integration





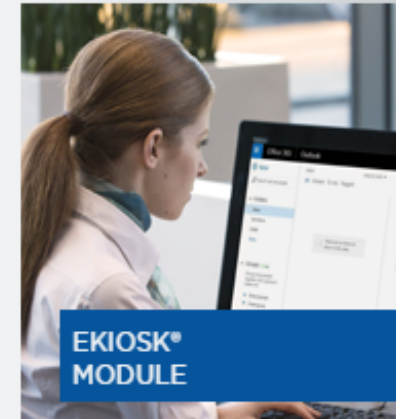
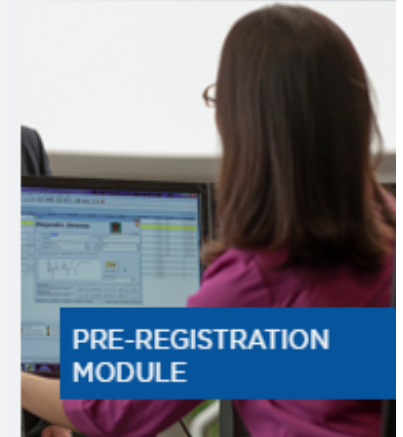
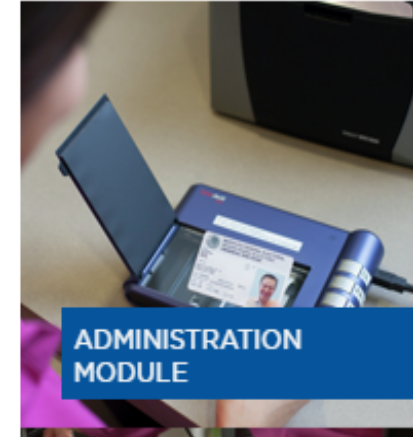
Photo Badging Software

- CardPresso integration allows for customer photo badge printing and management
- Requires a license dongle connected to USB
- State-of-the-art configuration allows a user to upgrade a single-sided card to a dual
- Optional Mag stripe and SmartCard Encoder

EasyLobby®

Visitor management system designed for the needs of any size organization.

Visitor Management Integration



VAX Future Roadmap



VAX Future Development

- Advanced Alarm acknowledgement allowing security personnel to input notes on events
- Controller support for OSDP (*Open Supervised Design Protocol*) for secure and bi-directional communication between Reader and Controller
- New GUI with widget-based controls
- Cloud-Based hosted server solution
- Integration with third party-based controllers (*e.g., Mercury*) and third-party systems (*e.g., wireless door lock systems*)

Thank you!



Vicon Industries
135 Fell Court, Hauppauge, NY 11788

vicon-security.com

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