

OPPORTUNITIES

in the Convergence of Mechanical Hardware and Low-Power PoE/IP Security Solutions

By Kerby Lecka

Technology is evolving at an ever-increasing pace. The world is wired. Internet cable is everywhere. If you are a professional in the commercial architectural openings industry, are you taking advantage of your security and life safety expertise in door openings to expand beyond your comfort zone? Can you afford to relinquish dominion over openings to practitioners of IT security, some of whom have no clue about how to assess, address and apply proven code-compliant solutions the way you do?

More importantly, are you ready for a slight change in your mindset to expand your business by taking back some of the openings you've handed off to others? Chances are that you've been providing mechanical locks and basic electronic solutions for years but have stayed away from many technologies that you've considered outside of your discipline.

The good news is that manufacturers are bringing many of these technologies to market and applying them in almost "plug and play" simplicity. The better news is that with the focus on technology, the world still needs commercial architectural openings professionals with the proper foundation—certifications and training—to apply these technologies and meet security and life safety compliance.

We're not talking about complex, enterprise-wide integration requiring a multitude of

resources or disciplines. We're talking about the 80 to 90 percent of the commercial door openings that exist today—a single door up to 10-12 door installations.

Most commercial buildings have some sort of electronic access and egress control security. But increasingly, businesses are seeking to secure doors on the interior—utility rooms, server/data rooms, labs, executive areas, even common employee areas—to provide enhanced security, safety, risk management and loss prevention within building and fire and life safety codes.

Buildings are smart and connected. Imagine the opportunities to provide access control solutions by simply tapping into the nearest Ethernet connection to connect, power and control door access and egress. Imagine the savings in cost and installation time by not having long cable runs and power supplies for every door or by eliminating controllers for powering access control devices.

Now imagine showing your customers how easy and inexpensive it is to secure an additional door or two using the same electric locks, devices and access controls you're already providing by using their existing Ethernet cable in a low-power, PoE (Power over Ethernet)-enabled network.

Here's where the slight change of mindset comes in. You have a career invested in education,

The Convergence of Mechanical Hardware and Low-Power PoE/IP Security



1 Locking Device

- Electric Strike
- Delayed Egress Lock
- Electric Bolt Lock
- Electrified Lockset
- Exit Device
- Frame Actuator Lockset
- Magnetic Lock



2 Access Control

- Standalone or Network
- Keyswitch
- Digital Keypad
- Card Reader



3 Egress Device

- Dual Latch Retraction & Dogging
- Delayed Egress
- Exit Alarm
- Electric Mortise
- Hi-Tower™ Actuator
- Field Retrofit: Latch Retraction & Dogging Kit



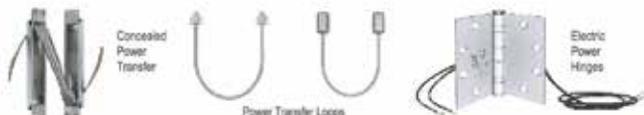
3 Egress Control

- Exit Switch
- PIR Egress Sensor
- Exit Sense Bar
- Emergency Door Release



4 Power Transfer Devices

- Required With Locksets & Exit Devices
- Electric Power Hinge
- Power Transfer Loop
- Concealed Power Transfer



5 Annunciator



6 IP Control



Example courtesy of Security Door Controls (SDC)

certification and training to operate successfully in the commercial architectural openings industry. Devote a little extra time to leverage that investment and knowledge by researching the many manufacturers that provide PoE and IP door solutions. They've done the work to educate with seminars, installation instructions, videos, data sheets, etc. because they want to sell their products. You can learn about and evaluate the many solutions that are right for you to properly apply to a door opening. After all, you're the door opening expert.

You know it's not enough to change out a mechanical lock for an electrified one, let alone one powered by Ethernet cable. How many other factors must go into deciding on the best solution for a particular door, including code-compliance? Who else has that knowledge and training?

Review Your Process

Start with a review of your process for assessing door opening solutions for your customers and projects. Beyond establishing the basic facts like type of door, type of traffic, location, door handing, etc., and then the many details like size, thickness, hinge type, door closer type, and lock type, you also need to know where the nearest power supply is. If there isn't a power supply, how close is Ethernet cable? Can the type of electronic door opening solution you're considering operate in a low-power (12VDC) mode at 2 amps (equal to 24 watts capability of PoE)? If it can, get comfortable converting amps—how you usually address voltage—into watts, which is how the world of PoE, IP and IT networks speaks ($\text{Watts} = \text{Amps} \times \text{Voltage}$). Add up the watts of the low-power devices and controls you're considering for your door solution to see if they're under 24 watts.

Another one of the benefits of offering low-power, PoE-enabled, IP-based door solutions is the ability to meet the growing demand for energy-efficiency, flexibility, and green and sustainable building requirements that are working their way through the building and into door openings.

How Will Your Solution Be Controlled?

Next, you'll need to consider how your solution will be controlled. The answer is typically with an IP-based access controller. Again, there are many manufacturers jumping into this arena. Consider those who have the same foundation you do in door openings first, electronic security second. Many IP-based solutions are designed for larger, more complex enterprise systems requiring IT network and hardware experience not usually required for single door or multi-door (up to 10-12) applications.

Here, you can look for simplicity. Does the controller have embedded browser-based software so that the door can be monitored and controlled 24/7 from any device with Internet access? Can it be done so securely while providing compatibility with your low-power components? Is it easily expandable to other doors in the building with the necessary access control capabilities you're used to recommending? Finally, is it PoE+ compliant?

The illustration on the previous page shows an example of the types of low-power devices, controls and components, and IP-based access control you might consider and where they may go into your door opening solution.

None of these devices, controls or components should be unfamiliar to you, with the exception of the IP-based access control. But even that product will be similar in its general operation and software capabilities

when compared to other basic electronic access control systems you may have had occasion to recommend or specify.

Now you can offer your customer more choices in controlling the door opening, including ones that take advantage of their existing building infrastructure to save time and money. Another one of the benefits of offering low-power, PoE-enabled, IP-based door solutions is the ability to meet the growing demand for energy-efficiency, flexibility, and green and sustainable building requirements that are working their way through the building and into door openings. This opens up the retrofit market even wider for upgrades to door openings driven by this demand.

By embracing a slight change in your mindset, you'll see why the convergence of mechanical hardware and low-power IP door solutions is a good thing for your business. It is an easy way to leverage your existing expertise to expand and control more door openings and add more value for your customers. You'll also maintain and enhance your position as the door opening expert upon which those customers rely. ■



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