CASE STUDY

CREATING A FRICTIONLESS ACCESS EXPERIENCE

Door Access

Universal Readers Enable Seamless Integration with Physical Access Architecture

REQUIREMENTS

Orion Entrance Control, Inc wanted to remove friction and frustration for their integrators and end users with a single-source reader that could support any RFID technology and fit seamlessly into their turnstiles and other physical access control (PAC) products.

The reader needed to be able to:

+ Provide reliable and secure user identification and access control with excellent read range

+ Read all of the RFID card technologies their clients might be using

+ Have a compact form factor and sleek design for integration with their PAC products

+ Enable remote updates to support changing client requirements

SITUATION

Orion Entrance Control creates software, hardware and infrastructure solutions for physical access control (PAC), occupant sensing, and visitor management. They develop access control software and manufacture high-end turnstiles, speed gates, swing gates, optical door alert systems, and other security solutions. Founded in 2009, they pride themselves on engineering and product excellence, with all of their products manufactured locally near their New Hampshire headquarters. They work with distribution partners and integrators to bring their access solutions to large commercial clients worldwide in education, healthcare, manufacturing and other industries.

TWN4 PALON COMPACT PANEL READER

+ Exceptional RFID performance in a versatile panel mount reader
+ Reads 60+ transponder technologies, LF and HF, plus BLE and NFC mobile credentials
+ Certified for use in numerous countries worldwide
+ Easy to configure/reconfigure
+ Robust polycarbonate housing

BENEFITS

+ Compatible with all major RFID badge technologies worldwide and mobile credentials
+ Optimized housing design for easy, fast and secure installation
+ Supports rapid contactless or remote configuration and updates
+ Easy and secure installation and back-end integration

One of Orion's priorities is offering seamless, integrated access solutions that minimize friction for integrators and are simple and reliable for end users. They wanted an RFID reader that would support any RFID technology and be easily integrated into their turnstile products.

CHALLENGE

Orion has 32 different turnstile products, from full-height mechanical turn gates to classic tripod turnstiles, to high-speed retractable barrier gates. An RFID reader embedded into the turnstile reads user credentials (e.g., an ID badge or mobile credential) and connects to the back-end software that verifies access authorization levels. Both their US and international customers use various RFID

transponder technologies. Turnstiles and other components provided by Orion need to work within the access systems already in use by their customers.

Traditionally, Orion would work with integrators to determine the credentialing system the customer needed and then order the corresponding readers. This created delays for installers as they waited for the right readers to arrive. It also created complexity in Orion's supply chain, as they had to manage inventory from multiple reader manufacturers. When the pandemic disrupted supply chains for some of their suppliers, they knew they needed to look for another solution.

At the same time, RFID reader read range was becoming a critical issue for many clients. More sophisticated reader technology and encryption create read-range challenges for some readers, especially when embedded under glass within a turnstile. This creates frustration for end users and slows down entry queues.

They also needed a standardized reader solution that would fit any of their turnstile products. The architectural community has pushed for smaller, more streamlined

> " We were looking for a really reliable reader that had great read range, could accept everyone's credentials, and would be ready to go when you fit it in the turnstile. It's one more thing we can do to remove friction and provide better service to our customers "

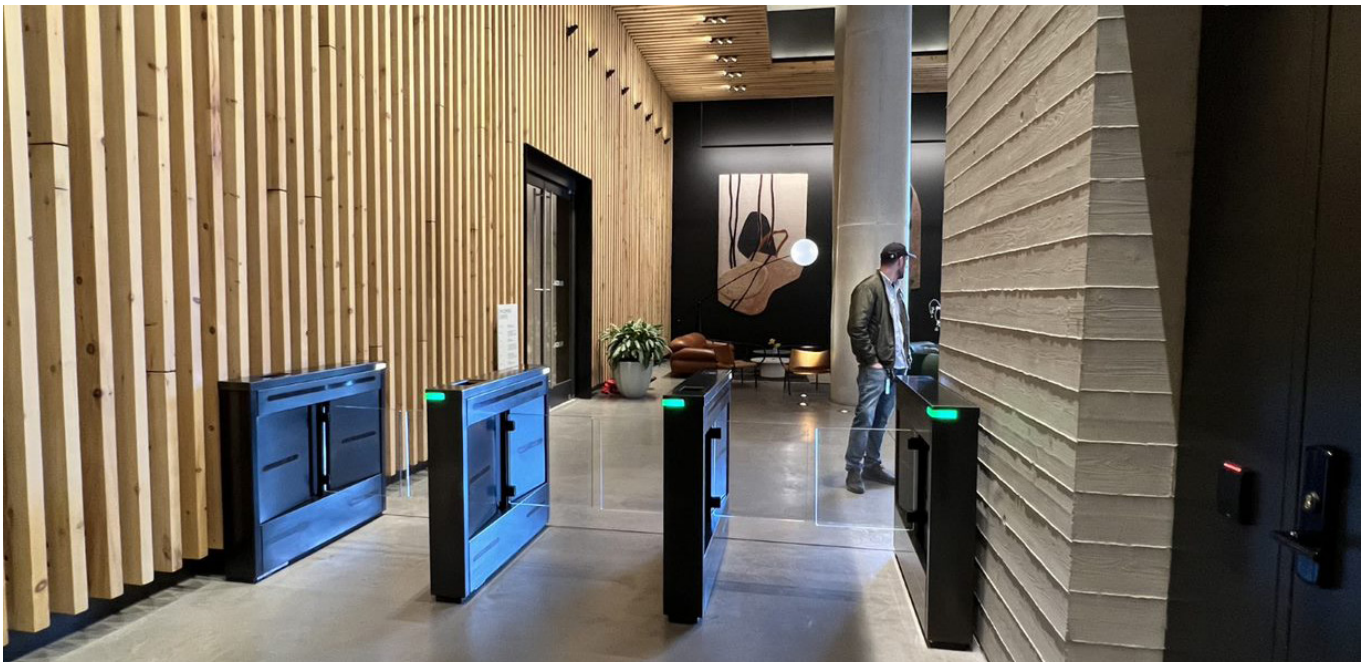– Jerry Waldron, Customer Care Manager, Orion Entrance Control

turnstiles, so embedded systems must be highly compact. Working with multiple reader manufacturers, each with differently sized and shaped readers, created engineering challenges for Orion and headaches for installers. All of this resulted in more work for integrators and more delays for buyers.

SOLUTION

The ELATEC TWN4 Palon family of readers fit the bill. The versatile readers are designed for seamless integration into third-party products and devices. Palon supports advanced interfaces (including RS-232, RS-485, USB and more) and is simple to mount and install.

The Palon Compact Panel Reader features a robust panel housing suitable for indoor and outdoor use and a classic design that fits seamlessly into Orion's turnstiles. They also have the option of using the TWN Palon Compact M reader, which comes without a housing.

The TWN4 Palon line supports 60+ transponder technologies, including both low- and high-frequency RFID and smartphone credentials via near-field communication (NFC) or Bluetooth® Low Energy (BLE). This gives Orion the flexibility to support virtually any existing transponder technology its clients use with a single reader.

ELATEC's readers provide excellent read range and reliability, reducing frustration for users and system managers. ELATEC was also able to help Orion integrate the Palon readers with a barcode reader to meet a customer's requirements. In that instance, the Palon reader acts as a data converter to connect the barcode reader to the Weigand interface, simplifying cabling for the installer. The integrated system now supports barcodes for visitors and RFID for employees for a unified access experience.

BENEFITS

A universal reader allows Orion to reduce friction for clients, installers and distribution partners, and their own people. Orion can now support all their customers with the same RFID reader, simplifying sales, supply chains, inventory management, installation and support. The sales team no longer must confirm in advance which transponder technology the end customer needs—the TWN4 Palon supports them all. And the engineering team can eliminate the headaches inherent in trying to fit readers with different form factors into their products.

A single-part number solution reduces the time it takes to get the right system into the hands of installers and end customers. It also provides flexibility for the future. ELATEC's readers support fast, contactless reconfiguration after installation via a configuration card or remote update. That means that it's easy to update the readers for clients who add a new transponder technology, integrate mobile credentials into an existing system, or upgrade their security standards. Their turnstile and door access solutions are now ready for the future.

Orion also appreciates the service and support they get from ELATEC. ELATEC has production capacity in the U.S., which eases Orion's supply chain worries. With ELATEC's support, they can now offer their customers a truly integrated PAC solution that provides a seamless access experience.

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