

From traditional applications to emerging self-service use cases, savvy integrators are using optical turnstile technologies to ease the security burdens for a wide variety of customers.

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More than a century ago, an enterprising entrepreneur named Clarence Saunders opened a small grocery store in Memphis, Tennessee, that operated under the then-preposterous notion that customers should be able to pick groceries off the shelves themselves. He was also the first person to figure out that turnstile technology — which, up to that point, was only used for livestock applications — should be a key aspect of this concept.

Saunders's Piggy Wiggly supermarket was the first to use turnstiles in 1916. While the technology has vastly evolved and improved over the past 108 years, in 2024, turnstiles are still proving to be one of the critical components behind a concerted push for secured entry and self-service.

Being a century-old technology, security integrators are undoubtedly aware of the ubiquity and usefulness of optical turnstiles. For foundational security integration customers — such as higher education and manufacturing and logistics facilities — the technology is being increasingly leveraged to enhance the employee and visitor experience, enabling users to easily navigate the access control process without the help of on-site security staff.

Beyond traditional applications, integrators should be cognizant of the fact that the technology is proving to be one of the key cogs in a growing self-service revolution. This emerging use case is in full effect at most airports in North America, where free-standing, unmanned self-service marketplaces are becoming the norm. At large sporting events and theater shows, "ticket-takers" are fast becoming a thing of the past. Even in lobbies of Fortune 500 corporations, everyday visitor management and employee access control has largely become a self-service experience.

With optical turnstile technology — integrated with related systems — as one of the foundational technologies for these applications, integrators are poised to be the companies that can make the self-service revolution a reality.

Here's a closer look at where integrators can take advantage:

Visitor Management with Minimal Intervention

Integrators are often tasked with helping customers justify the total cost of ownership of non-revenue-generating technology. One proven avenue to this justification is integrating visitor management software, access cards, and



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other life safety systems with optical turnstiles. By doing so, end-user security teams are able to provide valuable data to an organization's executives, providing a measurable return on investment (ROI).

"Presenting a valid credential at a turnstile provides the end user with information, including who is in the facility, time and location of entry and exit, and amount of time spent in the facility," explains Nick Simon, national sales manager at Alvarado. "Data can be used to predict peak usage times, allowing the venue to activate optimal operational best practices such as staffing, elevator availability, HVAC settings, lighting, and other similar functions to maintain security and a superior patron experience."

Secured entry control solutions and security turnstiles can integrate with a variety of third-party credential readers, such as a university's student ID card. Authorized visitors must present a valid credential at the turnstile to open the barrier(s) before entering. The turnstiles can integrate into a facility's visitor management software system, where a database of authorized users is managed. Elevator dispatch systems, metal detection, and secondary doors can also be paired to provide additional layers of detection.

In addition, entry control can interface with video surveillance and other detectors and sensors, providing data points that aid in risk mitigation and security planning for mustering and other life safety applications.

Such integrated systems prove ROI by enabling end customers to decrease security and lobby staff while also providing valuable data touchpoints about the occupants themselves that can be leveraged by sales and marketing teams. These systems have proven valuable to end users in a wide variety of vertical markets. Here are a couple of examples:

Logistics Warehouses: With hundreds of thousands of square feet of space and hundreds of workers to attend to them, access control is of utmost importance to logistics warehouses. One logistics company, CTDI of Pennsylvania, needed a way to manage its more than 20,000 employees in 100 different worldwide facilities.

Using its Rialto, California facility as a proving ground, CTDI turned to integrator NextGen Security to create a secure entry solution for employees that integrates RFID card readers, metal detectors, and, of course, turnstiles. This facility required a robust tailgate-proof solution, and NextGen recommended

the Alvarado CPSTT full-height tandem turnstile.

Configured for card-in and card-out operation, the turnstile solved the requirements for access control, enabling smooth employee ingress and egress while also giving CTDI headcount and other data on who was inside the facility at any given time. Tailgating was eliminated, and the end user was able to devote its security staff to more pressing metal and threat detection functions.





Higher Education: Cal Poly Pomona, a public university just outside Los Angeles, has leveraged Alvarado's SU5000 barrier optical turnstiles to streamline student access to the school's rec center. The system integrates with student access IDs to streamline the entry experience without the need for staff to oversee the process 24/7. Other schools have leveraged similar solutions, including Auburn University, University of Georgia, University of Nebraska,

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University of Colorado, University of Iowa, Rice University, and Florida State University, among others.

Emerging Vertical: Autonomous Markets

Beyond traditional turnstile applications, integrators are poised to take advantage of a growing trend of fully autonomous retail environments. Most common in massive, bustling facilities such as airports, stadiums, and even corporate office buildings, many Americans have become accustomed to a "grab-and-go" shopping experience that doesn't require any interaction with staff.

A vital aspect of the customer's journey in an autonomous market is the exit experience. A customer must be able to easily understand how to pay for their items and leave the facility with minimal intervention from staff. The executives in charge of the market itself need to provide an easy and pleasurable experience, while at the same time ensuring that shoplifting is kept to an absolute minimum.

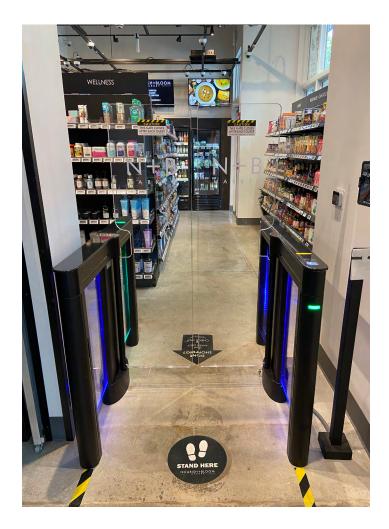
Both came together seamlessly at the Nourish + Bloom (N+B) autonomous grocery in Fayetteville, Georgia. While there are employees who oversee general operations, basic functions — including patron entry and exit, shopping, and payment experiences — have been designed to be contactless.

SES Integration of Alpharetta, Georgia, was tasked with integrating optical turnstiles into this entry, exit, and payment process. The technology turned out to be an integral part of the grocery's immediate success.

"The N+B owners walked us through the space so we could better understand their vision and match the right turnstile solution to their needs," explains Ben Scott, general manager of SES Integrators. "They ran down their checklist, showed us the layout of the store, showed us the electrical schematics, and detailed their vision for the N+B patron experience in this store and future expansions across the country."

SES Integration ultimately chose the Alvarado SU5000HA optical swing barrier turnstile, which provides a secured entry and exit point for patrons and integrates easily with the required payment scanning components. The integrator assisted N+B in sourcing and installing a "Tap & Go" credit card feature from Farpointe Data.

Not only did SES create a seamless customer experience, but they were also able to deliver the business intelligence data that savvy end-user executives demand from their technology solutions, ensuring a measurable return on investment (ROI) and lowering the total cost of ownership (TCO).



Product Selection Tips

Of course, not every end customer is trying to go "fully autonomous," but using turnstile and related technology remains a key aspect of theft prevention, access control, visitor management, and intrusion detection; in fact, the technology continues to evolve.

"Modern optical turnstiles offer a higher level of security violation detection and faster throughput than their predecessors," Alvarado's Simon explains. "Added intelligence and superior optical technology now allow for better detection, including identifying the difference between tailgaters and roller bags or luggage. The barriers can be drop arms, swinging glass, retractable sliding glass, or other materials. Many are IP network ready, and the newest turnstiles can include card stacking for faster throughput, climb over/under detection, and full integration with alternate card readers, biometrics, elevator destination dispatch systems, and other third-party emerging technologies."

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Key considerations in solution selection and risk mitigation include:

- Integration with existing solutions. Alvarado excels
 in third-party integration, making it simpler to integrate
 with access control while presenting a unique and easy
 retrofit solution using existing conduit, often eliminating
 the need for core drilling and major construction.
- 2. Detection of unauthorized presence. Alvarado's optical turnstiles combine integrated sensors and motorized barriers to control access and detect non-credentialed entrants, such as tailgaters. An unauthorized entry attempt will trigger an alarm, notify the user, and alert the proper authorities. Security executives then have the data needed to react immediately to security and access breaches.
- 3. Layered protection. Detecting unauthorized access at the earliest possible point in the building, the entrance, provides the risk mitigation a building requires. However, Alvarado features products that range from the outside perimeter to the interior of a building, including full-height turnstiles, optical

- turnstiles, and security revolving doors, so security integrators can layer prevention and detection throughout a facility in a customized manner. Alvarado also features specialized solutions for high-security verticals such as data centers.
- 4. A trusted partner for integrators. As with the use-case applications above, Alvarado works with its integrator partners consultatively to assess and understand each unique project to provide the solution an end customer requires.

Learn more about Alvarado dormakaba Group

Whether for an emerging, cutting-edge application or a tried-and-true customer requirement, Alvarado's solutions unify security and prepare customers for the future with integration and scalability, enabling them to incorporate new and emerging technologies as they evolve.

Astute integrators know that well-designed entrance security solutions not only offer necessary security and access control but also provide a wealth of data to make better risk management decisions with a justifiable ROI.

Learn more about how these solutions can serve as a foundation for your customer's security needs: Visit https://www.alvaradomfg.com/contact.

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