

# STADIUM

## TECH REPORT

FALL 2023



### FASTER PATHS TO FOOD AND DRINK

DENVER BRONCOS, ARAMARK TEAM UP  
ON NEW CONCESSIONS TECHNOLOGY  
AND STRATEGY

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## STADIUM TECH REPORT

### Welcome to the third issue of our TENTH year of STADIUM TECH REPORTS, the Fall 2023 issue!

These long-form reports are designed to give stadium and large public venue owners and operators, and digital sports business executives a way to dig deep into the topic of stadium technology, via exclusive research and profiles of successful stadium technology deployments, as well as news and analysis of topics important to this growing market.

This issue we are continuing our new direction of providing one extremely in-depth report, this time on the innovative concessions operations at Empower Field at Mile High in Denver. We hope you enjoy our in-person visit insights as well as the interviews we conducted with executives from caterer Aramark Sports and Entertainment and the individual technology providers.

We'd like to take a quick moment to thank our sponsors, which for this issue include Verizon, MatSing, Boldyn Networks (formerly Mobilitie), JMA, Boingo, CommScope, American Tower, and AmpThink. Their generous sponsorship makes it possible for us to offer this content free of charge to our readers.

We'd also like to welcome members of the The Association of Luxury Suite Directors (ALSD) and the International Association of Venue Managers (IAVM), who now have access to Stadium Tech Report content. We'd also like to welcome readers from the Inside Towers community, who may have found their way here via our ongoing partnership with the excellent publication Inside Towers.

As always, we are here to hear what you have to say: Send me an email to [kaps@stadiumtechreport.com](mailto:kaps@stadiumtechreport.com) and let us know what you think of our STADIUM TECH REPORT series.

Paul Kapustka, Founder & Editor  
Stadium Tech Report



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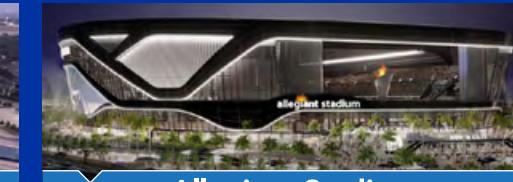
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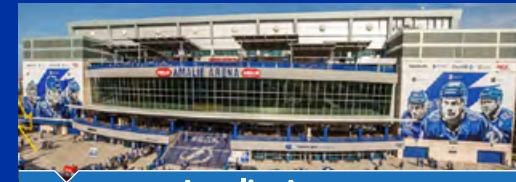
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Paul Kapustka

# WHEN YOU DEPLOY TECHNOLOGY, DON'T FORGET THE PEOPLE

With the recent explosion of stadiums deploying new technology in just about every phase of venue operations, it's easy to get caught up in the idea that technology alone can help solve multiple game-day pain points. But one thing struck me as I visited several stadiums this year, watching closely how fans interact with new technology: Without trained staff to help them, many fans would struggle.

Since it's clear that the post-pandemic staffing shortage is still a real thing at many venues, it's also understandable that owners and operators have turned to technology to help fill the operational gaps. But in subsequent visits to stadiums on live game days, it became apparent to me that staffing is even more critical than ever, especially as new

technologies require new roles for both workers and customers.

## TEACHING FANS NEW WAYS TO ENTER VENUES

With the post-Covid attention being paid by venues to try to eliminate lines wherever possible, one of the most-popular new technologies is the walk-through security scanner.

Unlike traditional metal detectors, which typically require attendees to stop and divest themselves of anything metallic, the new platforms from providers like Evolv, Xtract One and CEIA allow people to simply walk right by the devices.

Most of the platform providers and their customers have been saying that the new systems not only allow much faster ingress, but they also have fewer "false positive" scans than previous systems. They also typically require fewer staffers per stand, since there is no need for personnel at every gate to look at divested items or to hand-scan fans who set off the alarms.

And while some providers of the new technology are already quantifying value by noting the savings on staff resources, there is a twist on that claim. Since the new systems also require venues to construct an entirely new way for fans to enter the building, that also means completely new training is needed for the entry staff that do remain. With the Evolv systems, for example, instead of standing right by the gate staffers are typically positioned a few yards beyond it, watching a screen for any alerts. Fans who do need additional scanning must then be stopped and directed to a secondary-scan area, something that right now is set up differently for every venue we've been to.

What does this mean for staffing? For many venues it means that while

you might be able to get by with fewer numbers, those who remain will need more training and more familiarity with the new systems, things that probably translate to higher pay. And until the new systems become second nature to guests, there is also some hand-holding and fan-use instruction added to the task list for some of the security staff.

## HELPING FANS LEARN SELF-SERVE CONCESSIONS

On the concessions side of things, a similar need for on-site instruction is also apparent. At every one of the stadiums we visited this summer and fall we saw a huge need for staffers who could help guide fans through their initial interactions with the new self-serve technologies being introduced. While we did see numerous fans who had clearly become new-technology veterans, it's helpful to remember that over any given team's season, the large majority of fans will only attend one or a small number of events.

That means that even at stadiums that have had new concessions technology for several years, like Empower Field at Mile High in Denver, at every game or concert there is an entirely new group of fans who need to learn the new technologies, often in hectic situations.

Unlike at a grocery store, where you might be able to learn a self-checkout scanner at a somewhat relaxed pace, at a stadium you may be confronting a

new checkout technology at the front of a line of fans who are all trying to get food and drink as fast as humanly possible.

At Empower Field at Mile High we came away incredibly impressed by the performance of the staffers at the multiple stands with new technology as they clearly explained operations (and in many cases, took over and showed newbies how it worked by scanning their items for them), all in the concessions crush that happens in the hour before kickoff.

What occurred to us as we watched the clearly veteran staff in operation was that for many of the new-technology concession stands, the traditional process of bringing in temporary concessions help (like school groups or others who would work as part of a fundraiser) may not work very well. Like the new entry technology, the new concessions systems also allow stands to operate with fewer staff – but the staffers who are working need to be more highly trained and more able to handle much different tasks.

## THE JOBS THAT CAN'T BE AUTOMATED

At one of my stadium tours this summer, I took a break at the end to enjoy a cold beer provided by our venue hosts. As I sat at a bar overlooking an NBA basketball court, the bartender asked me what I did for a living.

I explained it quickly, adding that I was primarily interested in one of the new things at that stadium, some checkout-free concession stands, one of which was right around the concourse curve from the bar.

"Oh," she said. "You mean one of those places that's taking away my job."

I also heard another story this fall from an executive at a company that provides new concession technology where he admitted that one of the pleasures he takes away from a regular game-day experience was interacting with a "favorite" bartender at a stand near his seats.

Whether it's someone who knows your favorite beverage and has it ready at your usual time, or someone who "pours a little more" to regular customers, that person may provide a worth that's hard to measure – but it may be more attractive to some fans than an automated drink machine.

So yes, it makes sense to pursue, study and track the development and deployment of more technology in stadiums, since it is fairly clear that such advancements improve the experience for fans while also helping stadiums on the bottom line. But in that journey, taking care of the human resources behind all those changes needs the same amount of attention.

BY PAUL KAPUSTKA

# FASTER PATHS TO FOOD AND DRINK: BRONCOS, ARAMARK TEAM UP ON CONCESSION-TECHNOLOGY INNOVATION

Concession Services **ARAMARK**  
Checkout-Free Concession Stores **ZIPPIN**  
Facial Authentication System **IDMISSION**  
Self-Checkout Scanners **MASHGIN**  
Concession Kiosks **OLEA**  
Self-Checkout Kiosk Software **TAPIN2**



The linebacker-size Denver Broncos fan walked boldly up to the new-technology concession stand, stopped at the entry, spread his hands wide and said with a smile: "OK, tell me what I need to do here." If you've been to a game recently at Denver's Empower Field at Mile High, it would not surprise you that the fan expected to encounter something different when he went to purchase food or drink. For the past few years, the stadium has been a kind of ground zero for stadium concessions technology innovation, pushing the envelope in search of friction-reducing systems.

Led by the Broncos and their caterer, Aramark Sports + Entertainment, the stadium was moving in this direction even before the Covid pandemic. But the pace of innovation accelerated once fans came back from the shutdowns, with many more fans willing to adopt new transaction technologies that put a premium on social distancing.

## 8,000 NUMBER OF GAME-DAY ZIPPIN STORE CUSTOMERS

In Denver, Broncos fans became some of the first to encounter optical scanning self-checkout terminals, where concession items get scanned by cameras instead of being tallied by a cashier. Empower Field at Mile High was also host to some of the first checkout-free concession stands, where customers simply scan a credit card at an entry gate, get what items they want, and leave the store, with payment taking place online later. While other stadiums were also testing checkout-free stands, the Broncos and Aramark quickly went all-in on the concept, expanding to the nine such stores found in the stadium today.

And this season, there was another twist added: Customers using the checkout-free stores could enroll in a program that would let them use facial authentication systems for age verification and payment, for an even faster way to get food and beverages.

In addition to more new technology, including self-checkout kiosks and a program that allowed fans to self-checkout via scanning items on their phones, Aramark and the Broncos also brought some new ideas to concession stand layout and operation this fall, with new configurations designed to further speed up the purchasing process.

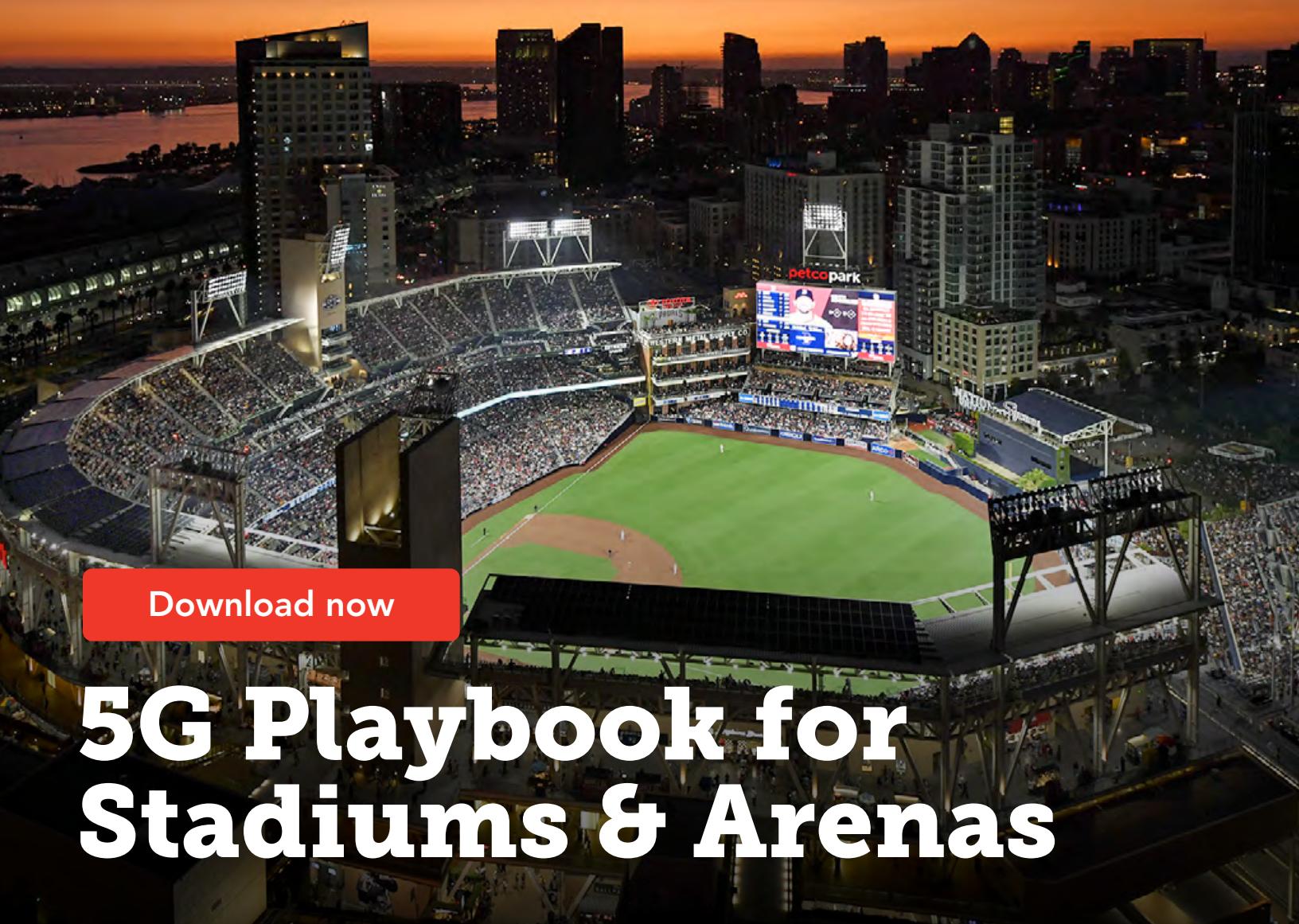
And if all these innovations improved the game day experience for fans, their enthusiastic embrace of the new systems may have been even better for business. In addition to allowing venues to operate stands with fewer employees per stand, the new technology stores are outperforming many traditional belly-up stands. According to Alicia Woznicki, vice president of design

and development at Aramark Sports + Entertainment, new-technology concession stands saw a 50 percent rise in revenues last year at all Aramark properties. To make sure we didn't just rely on positive statements



A Mashgin terminal is used for checkout at a grab-and-go stand.  
Credit all photos: Paul Kapustka, STR

from providers, Stadium Tech Report visited the stadium during a Broncos home game this season to see how the technology worked with a live crowd, and whether or not it was living up to its praise.



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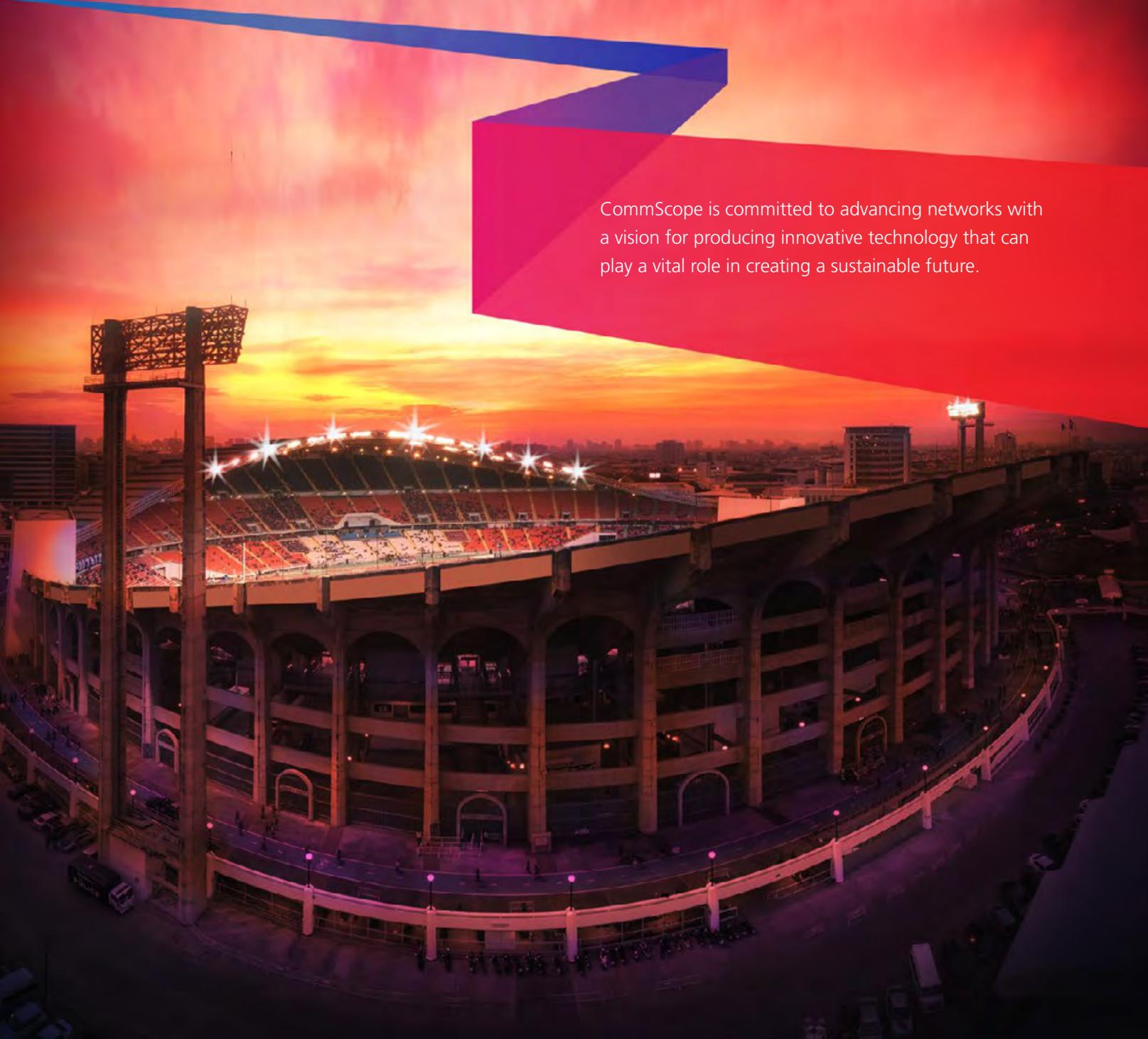


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**There are 20 Mashgin terminals in use at Empower Field at Mile High, including four at this grab-and-go stand on the upper concourse.**

Our take, after spending several hours watching fans at different stands with different types of technologies, is that the new systems do work well at speeding up transactions, and can even add a little fun along the way. While very new procedures like the facial-authentication systems may take a little longer to catch on, the ability of fans to watch other fans do things that very obviously produce a faster transaction are a powerful allure to try something new.

Watching our “big” fan at a gate to one of the checkout-free stores was instructive — the store staffer at the front gate quickly explained the how-to process to get inside (a credit card scan and an ID check). With a smile the fan strode into the store, grabbed his items

and quickly left — another satisfied participant in the Denver concessions-technology experiment.

Next: We will break down several of the top initiatives in place in the stadium.

## PART 1: FACING A NEW WAY TO ZIPPIN

Zippin, a San Francisco-based startup which is leading the sports stadium market for checkout-free concession stands, is now embracing another new technology — facial authentication systems for age and payment verification — to speed transactions up even more.

“This is the holy grail for us,” said Alicia Woznicki, vice

president of design and development at Aramark Sports + Entertainment, about the facial authentication trial taking place this season. Aramark, the catering firm that runs concession operations at Empower Field at Mile High, started its experiment at a few of the nine Zippin stands at the Broncos' home opener, and has expanded it to the remaining stands as the season progressed.

As part of Aramark's focus on improving beverage services, Woznicki said that checking a fan's ID to make sure they are 21 or older was the "last piece of friction"

increase in sales per stand and the fewer staff needed to run a checkout-free stand. What makes them fast is the combination of cameras and machine learning that lets fans simply scan some kind of payment proof at the entry gate, and then grab what they want and leave, with billing taking place later online.

But at every checkout-free store, a staffer is still needed to check customer IDs for alcohol purchases, a physical process that is different for each individual and can eat up multiple seconds between fans finding their cards and staff doing visual evaluations.

authentication systems – where participants enroll ahead of time with some combination of proof of physical ID, and sometimes payment information – are becoming more prevalent in society overall, from personal systems like those found on the iPhone to the Clear lanes and the new TSA checks at airports, which have introduced the idea of facial authentication to many.

But in the stadium world the idea of having fans register beforehand with photos of their state-issued IDs and a selfie to allow them to enter stadiums or buy concessions by just showing their face to a monitor is still in its early days. Using software from a startup called Wicket, teams including the Cleveland Browns, New York Mets and the Atlanta Falcons have been running programs the past few years where fans can tie their tickets to a facial authentication program, providing them faster entry to the stadium by simply staring at a screen on the way in. Most of these deployments also have special lanes for the facial-authentication systems, speeding up the interaction even more.

And last year, the Browns teamed with Aramark, Wicket and a mobile-ordering software firm called

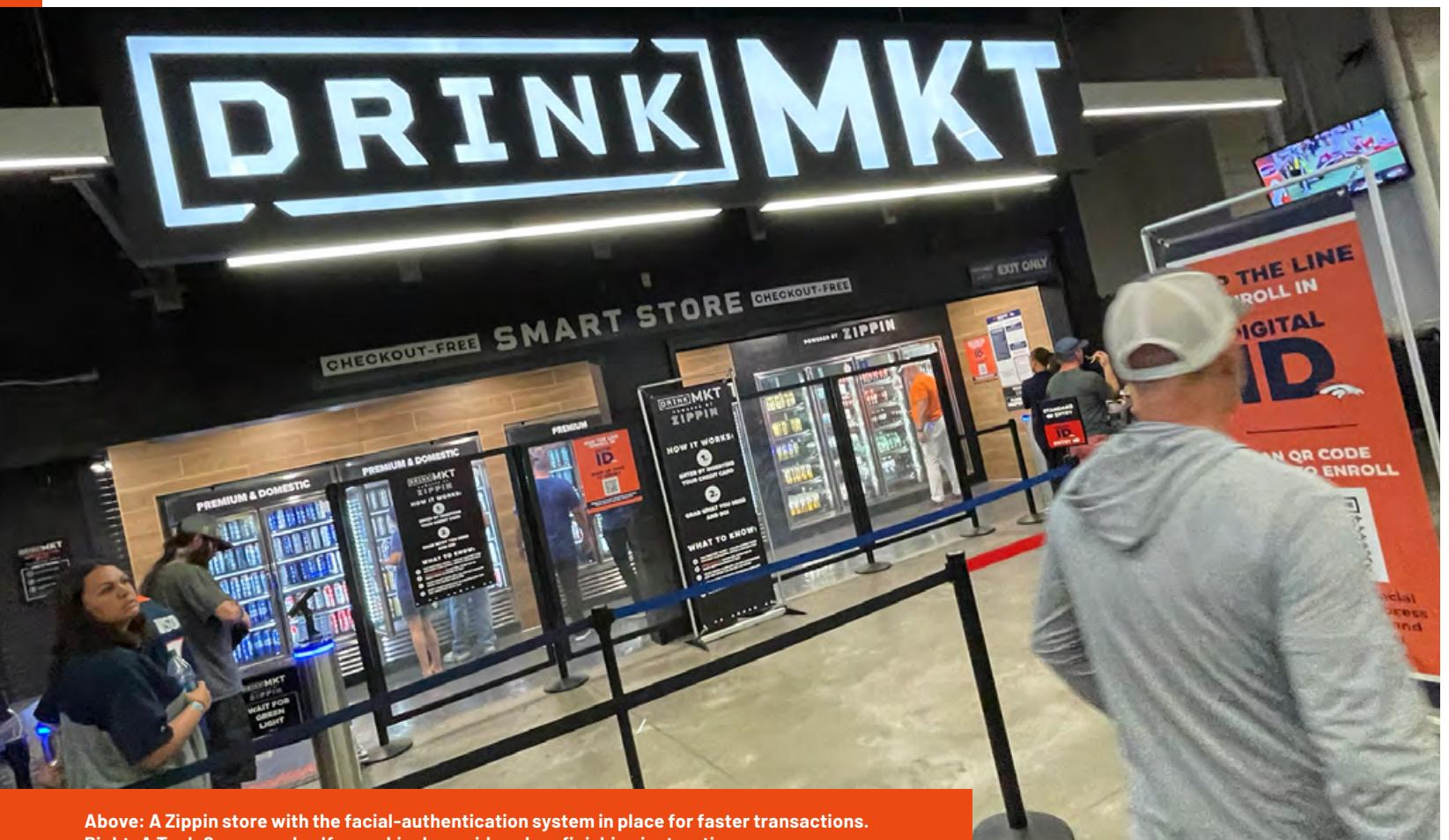


TapIn2 to set up a program where fans could enroll with photos of their ID, a selfie, and payment data so that when they wanted to buy a beer from a special stand in the program, they only had to show their face to an iPad screen for payment and age verification.

A key part of that solution came from a Boulder, Colo.-based company called IDmission that has years of experience of doing online ID verification for banking companies. For the Denver Zippin stores trial, Aramark is only using software from IDmission for the facial-authentication lines, which are separate from the regular Zippin entry lines, to provide an "express" lane for fans willing to try the new system out.

After enrolling in the system, fans in Denver can simply approach the tablet mounted on the entry gate, make sure their face is centered in the screen, and wait a few seconds for payment and ID verification. Then the gates open, and they can walk right in, only needing to show a staffer that their cans are opened before leaving.

On paper it might not sound like a big leap, but from what we observed at a recent Broncos game, being able to skip the number of variables that might pop up



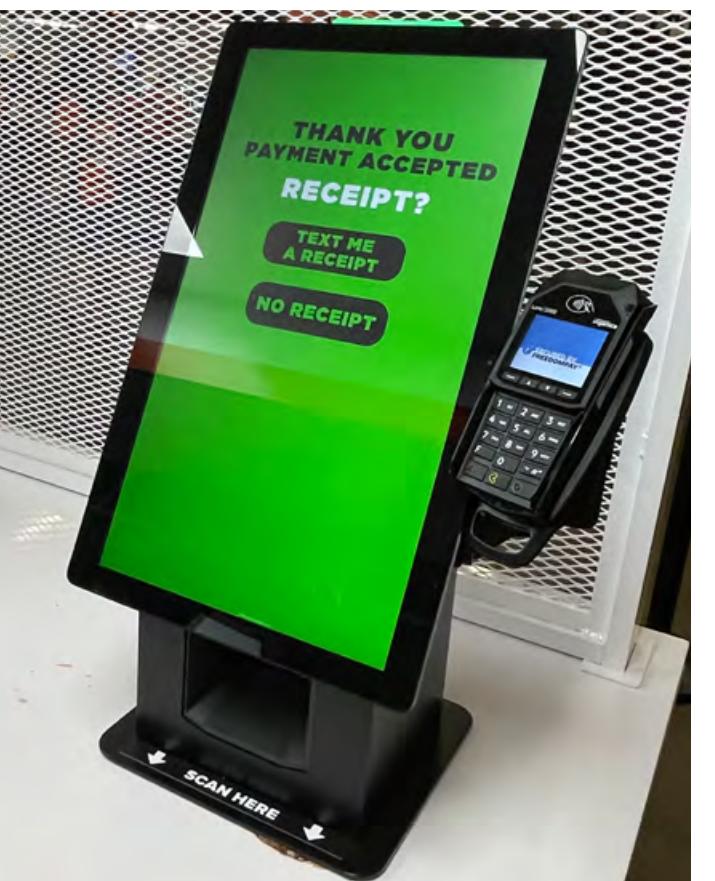
Above: A Zippin store with the facial-authentication system in place for faster transactions.  
Right: A TapIn2-powered self-scan kiosk provides clear finishing instructions.

in the purchasing process, something that seemed like a stop sign on the highway of checkout-free transactions.

Like other checkout-free stands, the Zippin stores have won rave reviews from fans for the transaction speed, and enthusiasm from venues because of the

"The ID check was really bottlenecking the fast experience [of checkout-free]," Woznicki said. "We wanted to see how fast we could make it."

That's when Aramark and the Broncos turned to the idea of using facial authentication for both payment information as well as age verification. Facial



from ID checks and payment verifications can provide a huge improvement in overall transaction speed, from half a minute or so to just a few seconds.

The next trick for Aramark and the Broncos is to get fans to try out a system that combines two new technologies. While the existing Zippin stands at Empower Field at Mile High are popular – according to Aramark, during the Broncos home game on Sept. 17 this year the nine Zippin stands saw a total of nearly 8,000 customers – at every game there are still fans who are new to the checkout-free concept and need a little on-site coaching. At the game we attended on

Sept. 17, we only saw a combined handful of fans using the facial-authentication gates at all the Zippin stores we visited.

Part of the low user total may have been because the Broncos and Aramark had not yet sent out an informational email about the new system to season-ticket holders before the game. Other hindrances included some unclear signage at some of the smaller Zippin stands that made location of a different line for facial authentication hard to find. We did, however, see numerous fans in the Zippin store lines studying the posters advertising the facial-authentication system,



Lots of signage helps fans negotiate the different interactions at Zippin stores.



The self-checkout 'Mountain Pass' stand replaced three traditional stand areas with one synchronized grab-and-go market with multiple checkout scanners.

and scanning the QR code for a link to the signup page while they waited.

And at the biggest Zippin stand in the stadium, on the main lower concourse, a clearly marked and physically separated facial-authentication line saw several users in the few minutes we watched. With no confusion and no need for staff assistance, those customers were verified and inside the store in five seconds or less. Customers who went through the usual process of scanning a card and showing an ID to a staffer could see times of 20 to 30 seconds or more to simply gain entry, according to several clockings we took while watching in person.

But overall, most of the Zippin transactions we timed were under a minute total from walking up to exiting.

And while the Zippin stores did have lines forming outside them during the pregame crush, the lines moved quickly, clearly serving more fans in less time than the traditional belly-up stands that were nearby.

For the customers who had already embraced the facial-authentication system, combining that efficiency with the fast-pace shopping once inside a Zippin store seemed close to the fan concessions nirvana that venues have been seeking to provide. While some customers will always be wary of using biological information for payments, for an increasing number of stadiumgoers, the convenience of fast transactions apparently far outweighs the concerns.



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## PART 2: FLEXIBILITY MAKES MASHGIN AN EASY CHOICE FOR VENUES

Even before Zippin, fans at Empower Field at Mile High got introduced to new concessions technology several years ago when a curious machine appeared at the checkout area of some stands. Instead of a staffer behind a terminal, the new devices were a platform surrounded by metal bands above and on the platform's sides. What fans were instructed to do was to put their items on the platform, where they would be scanned by cameras and would instantly show up on the screen of the attached payment device.

Provided by a Palo Alto, Calif.-based startup named Mashgin, the terminals provided a fun and faster way for fans to get a few simple items, like canned drinks or grab-and-go snacks, than waiting in long belly-up lines. With devices now in more than 70 stadiums throughout the U.S., according to the company, the Mashgin devices continue to win fans both from attending customers as well as from venue operations teams. At Empower Field at Mile High, there are 20 Mashgin terminals in use, spread out across six different concession stands.

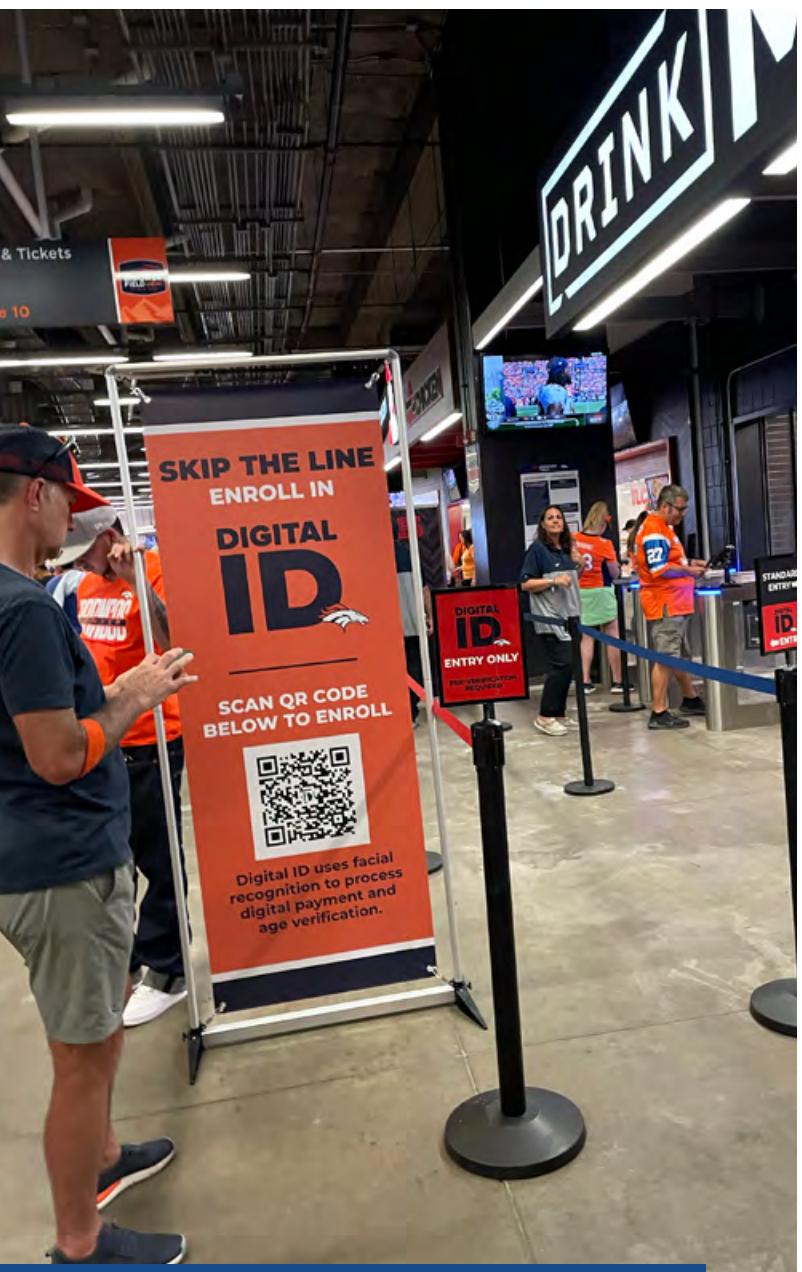
New venues embracing Mashgin devices this football season include the university stadiums at Alabama, Texas and Auburn. The social media team at Auburn posted a fun video of the Auburn Tiger mascot showing how easy it was to use the devices for concession

checkout. Like Zippin, Mashgin allows venues to replace the traditional cashier checkout with formats that allow customers to select their own items, then do the pricing and checkout with (hopefully) minimum assistance.

Like other technologies that supported contact-free transactions, Mashgin terminals got a big lift when fans returned to stadiums after the Covid pandemic. While previously fans might have eschewed self-serve devices, in the return after Covid fans embraced them wholeheartedly. Though exact numbers are hard to come by, venues with Mashgin deployments generally talk of big-percentage lifts in overall transactions and

**Top:** An older belly-up merchandise stand causes traffic jams on the narrow upper concourse with its lines perpendicular to foot traffic. **Bottom:** A Mashgin terminal with disposable trays on top to help customers with multiple items.





Fans could enroll for the facial authentication option onsite with a QR code scan.

per-cap spending at stands that use the devices to replace traditional checkout formats.

The two other things that make Mashgins an attractive option to venues are the devices' costs, and their deployment flexibility. Unlike the Zippin or Amazon Just Walk Out stores, which can cost into the hundreds of thousands of dollars to deploy depending on the

size and real estate used, the Mashgin terminals are comparatively less expensive and can be moved around as needed to different stands, needing only power, a network connection, and a flat spot to put the device on.

What the Mashgin terminals do call for is more customer work than a checkout-free store, since customers must still check out themselves. And even though we saw some clear Mashgin veteran users during our visit to Empower Field at Mile High, many other fans were obviously encountering the devices for the first time and needed staff assistance to complete the checkout journey.

At one stand, we saw a Mashgin power user wave off the offer of help from staff, and purchase two beverages quickly, spending just 21 seconds to place his items on the device, tap a card to the payment device, open his cans and have his ID checked by the staffer. Another fan at the same stand needed a bit more help, with the staffer showing how the items needed to be spaced a bit apart so the cameras could pick up each one. That transaction, which included the ID check/can opening and the fan using their phone to pay for the purchase of two beers and a box of popcorn, took 46 seconds from when the fan arrived at the terminal. That time was in addition to the time spent selecting items, which we did not measure.

In other live-game situations we have witnessed, where we have seen Mashgin terminals struggle a bit is when fans try to check out a large number of items that may not all fit on the pedestal at once. According to the company, it is working on a fix that will allow a customer to scan one set of items and then press a button on the screen to allow for another set to be scanned before entering payment information.

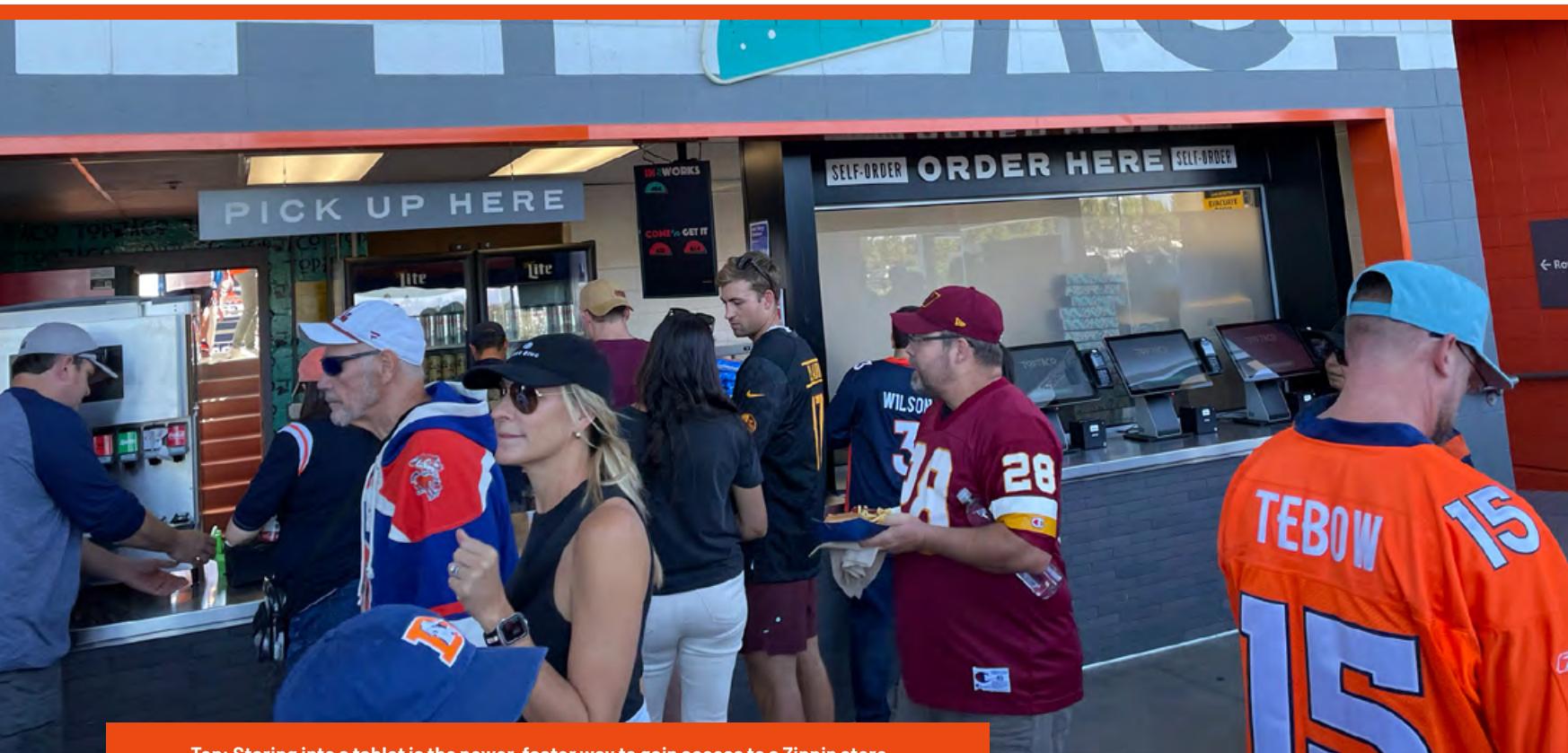
In Denver, we also saw numerous short delays during Mashgin checkouts when fans would get confused by the overall process, especially since the order of scanning, paying, having an ID check and opening cans before you are finished seems

to vary not just by stand but by staffer. These delays seemed less about the Mashgin devices and more about the layout of the stands and the timing of the ID checks.

Again, there are not a lot of statistics to exactly measure performance but both company execs and venues that have the devices are convinced that in the right situation, Mashgin terminals can offer a distinct time advantage over cashier checkouts or even other self-scan devices like bar-code readers. And the ability to move the Mashgin devices around from spot to spot is likely a big selling point especially for heavy-use venues that often have different event-day setups.

For now, the Mashgins are a valuable tool in the Empower Field at Mile High concession quiver, with more stadiums following that lead.

"There's a place for all the technologies [in concessions]," said Brandon Scott, head of sports for Mashgin. "We've carved out a spot."



Top: Staring into a tablet is the newer, faster way to gain access to a Zippin store. Bottom: Kiosks (right) are used to place and pay for orders at a taco stand; a video screen in the pickup area lets customers know when their order is ready.





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#### PART 3: THE RISE OF THE CHECKOUT KIOSK

If there is a newer concessions technology that is fairly obvious in the how-to of its use, it's the big-screen kiosk. Popular at quick-service restaurants in many places, self-order kiosks have been gradually growing in use at stadium concession stands, including Empower Field at Mile High, where the technology has been in use for several years in a few different iterations. At some kiosk stands, customers order and pay at a kiosk, and then pick up their order when it's ready at a separate window.

But this year, kiosks are getting a new task: Self-scan checkouts. Flipping the model on its head a bit, Aramark this fall installed 39 checkout kiosks running software from TapIn2, which specializes in mobile and self-service solutions.

With big screens and a very obvious bar-code scanner right below, the kiosks (manufactured by a company called Olea, which builds a large number of white-label kiosk devices) are being used at some new and old grab-and-go stands at the stadium, including one single stand that fills the space previously occupied by three separate stands.



Top: Even with all the new technology, there is still a need for hawkers selling drinks out of trays. Bottom: one of the hot-food lines at the Mountain Pass stand.

Called the "Mountain Pass," the three-space store on the first-level concourse features two separate grab-and-go lines with a wide offering of choices: Burgers, build-your-own nachos with a bag of chips and sauce in a cup, pizza, fries, popcorn, hot dogs and pretzels, alongside coolers full of various beverages. In the middle of the two walk-through lines, which are one-way passages walled off from the concourse, is the checkout area, which has 22 of the new TapIn2-powered scanners.

There, fans either use the bar-code scanner for items that have codes on their packaging, or select items by searching for them on the screen, a process already familiar for those who have used self-scan systems at grocery stores. Fans then pay for all their items with the attached card scanner. Staffers are there to check IDs for alcohol purchases, alerted by an LED panel that turns red on the top of the kiosk when an alcoholic beverage is scanned or selected.

According to Aramark staffers are also supposed check receipts to see if the payment matches up with what's in the customer's hands, but during our time witnessing interactions we didn't see any staffers do so. Instead, the staffers (we counted six during the pregame rush) were mainly helping customers figure out the new systems, and reminding them to open beer cans before leaving.

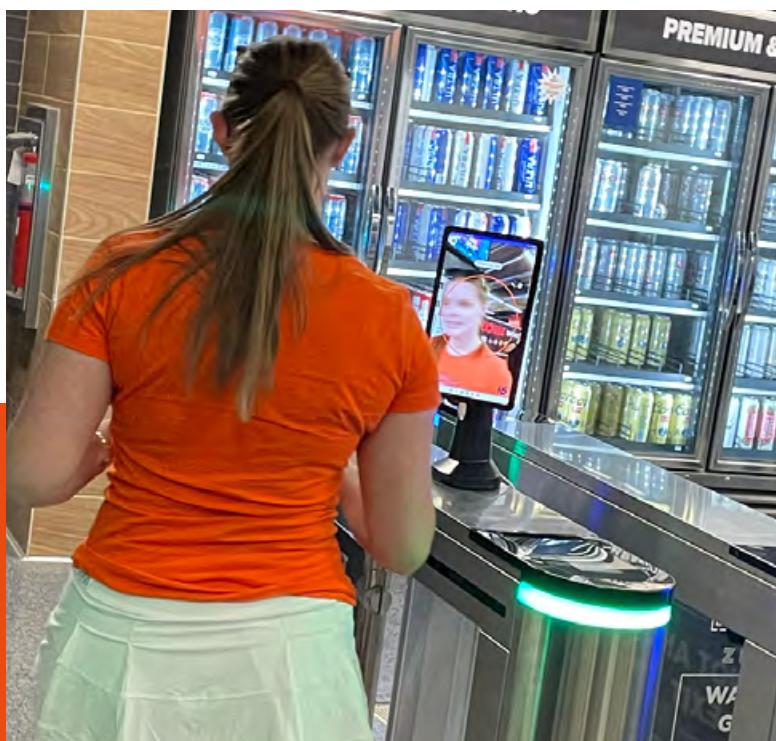
There is also an option at the Mountain Pass store for customers to sign up for a web-based application that allows them to use their phones to scan items as they select them, but we didn't see any fans using it during the few minutes we watched.

According to Aramark, the Mountain Pass configuration is already looking like a success. So far this year, the combined-stands layout has seen an increase of 19 percent in per-cap spending than the three separate stands it replaced.



## INCREASE IN TRANSACTIONS FOR GRAB AND GO STANDS WITH SELF-SCAN CHECKOUT TECH

Lloyd Ruch, vice president of client services and a co-founder of the Pasadena, Calif.-based TapIn2, said the self-checkout kiosks are just part of a natural progression for the company, which started out specializing in mobile ordering software (which is used at stadiums including Empower Field at Mile High) and then branched out into self-ordering and now self-checkout devices.



A customer using the facial authentication system gains fast entry to a Zippin store.

We also saw some of the new kiosk checkout scanners in use at some "Favs@MH" stands, which are basically smaller versions of the same theme, with a smaller menu of grab-and-go items and a lower number of

scanners (four in one of the stands we saw). According to Aramark, the "Favs@MH" stands with self-checkout technology (some have the kiosks and others have Mashgin systems) have seen a 43 percent increase in transactions during peak times.

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Multiple terminals for self-checkout speeds the process at the Mountain Pass stand.

According to Ruch, the design and development of the new self-checkout kiosks took about a couple years to complete, with TapIn2 working with Aramark to get all the kinks worked out. Ruch said the final product, which is also being used by the Cincinnati Bengals and the Seattle Seahawks this season, is not only very familiar to most customers but it is also a cheaper per-unit product than the Mashgin devices.

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**"The big scanner is nice, it works if you put the products anywhere close," Ruch said. "It was a big step forward when we got the right form factor and the better scanner."**

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While the TapIn2 self-scanners may not be as revolutionary as the Zippin or Mashgin technologies, there is widespread familiarity of how to use kiosks and barcode scanners. In Denver, the customers we watched

needed much less assistance from the staff on how to use the devices. And the scanners could eventually

speed up checkout performance by adding a facial authentication component, which could be done through the built-in screen.

## PART 4: WHEN DESIGN AND PROCESS ARE AS IMPORTANT AS TECHNOLOGY: WALK THRU BRU

The one thing that's often not mentioned when discussing stadium concession technology is that the physical layout and functionality of the stands themselves can sometimes do as much to improve fan and business experiences than any technology.

Starting just before the pandemic hit, Empower Field at Mile High and other venues began experimenting with concession stands that looked much different than the traditional "belly up" design where cashiers stood on one side of the counter and interacted with customers in lines perpendicular to the counter.

At Empower Field at Mile High the Aramark "Drink Mkt" stands were among the first different ones to launch, basically just spaces where customers would walk by tall glass-door coolers, select what they wanted and check out. At some of the stands, traffic came in one side and exited on the other, keeping congestion to a minimum. By building more stands with narrow menus of either drinks or simple food selections, venues were

starting to balance out the lines that had forced people to the general-purpose stands even if they only wanted a beer or a bottle of water.

"Walk Thru Bru," an Aramark model that placed such a stand usually on concourse walkways, was another early design that proved effective. For Aramark a Walk Thru Bru stand is a simple deployment that typically involves a closed-in, single-file line space where fans walk along glass-door coolers, select their items, and proceed in the line's one-way direction to the checkout stands. While Mashgin devices were the original checkout choice for the stands, according to Aramark it has found through testing that it's mainly the slim-line design that speeds up transactions, and not necessarily the checkout technology.

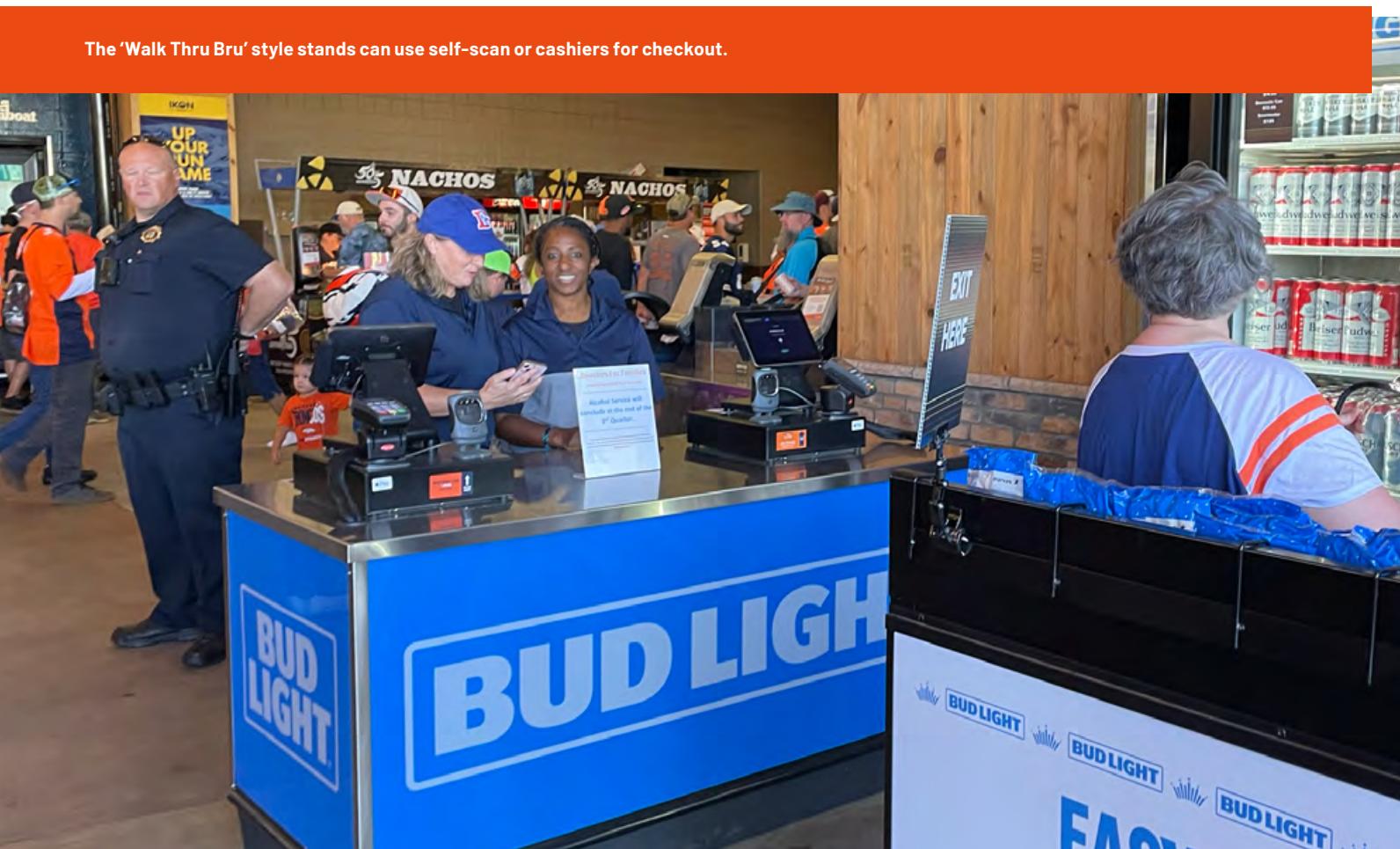
When Aramark started deploying the Walk Thru Bru stands, "we loved pairing them with Mashgin and Zippin," said Scott McDade, Aramark vice president of

insights. "But what we found is that the model itself has a lot of efficiency — people can shop for themselves, making their decisions before the register."

According to Aramark, that efficiency was the main driving factor behind the concessionaire's decision this NFL season to remove "portable" beverage stands — usually a square stand where cashiers sold either draft beer from kegs or cans stored in ice bins — from many of its major NFL client stadiums and replace them with the "Walk Thru Bru" concept.

According to McDade, the switch has already started paying off. At the Chicago Bears' home opener this season against Green Bay, McDade said a stand area where a Walk Thru Bru replaced a portable stand saw 80 percent more transactions than at the home opener from the year before. At Empower Field at Mile High, Aramark said Walk Thru Bru conversions "have seen increased participation of 55 percent during peak

The 'Walk Thru Bru' style stands can use self-scan or cashiers for checkout.



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Premium Canned Beer	\$10.99
Classico Bottled Beer	\$4.99
Aquafina Water	\$4.99
Coffee	\$4.99
Hot Chocolate	\$4.99
Specialty Ices	\$4.99

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**"The model itself has a lot of efficiency - people can shop for themselves."**  
**- Scott McDade, Aramark VP of Insights**

periods," which allows those locations to take on more volume and reduce the size of lines at other stands.

Alicia Woznicki, vice president of design and development at Aramark, said the Walk Thru Bru design offers "so many benefits from a client perspective." In addition to the increased sales, the stands are easily branded with cooler signs or printed designs on the materials used to create the lanes. At Empower Field

at Mile High, we saw several Walk Thru Bru stands with Bud Light branding, and another with Topo Chico as the signage sponsor.

By lining up the stands parallel to concourse flow, Woznicki said they can help keep concourses from jamming up during peak purchasing times. And, like the other Zippin- and Mashgin-powered stands, they can reduce line pressure on the stands where fans may be buying specialty cooked items or mixed drinks.

Woznicki said the bet on Walk Thru Bru led Aramark to eliminate the "TendedBar" automated drink stands it had previously deployed at Empower Field at Mile High. The TendedBar stands, which are basically large trailers with multiple taps where customers select custom-mixed drinks from a screen menu, are gaining acceptance elsewhere, including recent deployments at Darrell K Royal Texas Memorial Stadium at the University of Texas and at Texas A&M's Kyle Field.

"We just saw more traction with the Walk Thru Bru stands," Woznicki said. "What we hope is that [having more of them] will make lines faster at bars where people want mixed drinks."

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Top: A staffer helps a customer negotiate checkout on a Mashgin scanner.  
 Below: The narrow profile of a Walk Thru Bru stand keeps concourse traffic flowing.



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