Touchless Payments:

A Key to the Return of Live Events

November 2020

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Table of Contents

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I. Executive Summary

With the introduction, spread and severity of COVID-19, the world of sports and commerce has drastically changed. Now, with widespread practicing of social distancing measures, a seamless and entirely contact-free, or touchless, payment experience is highly relevant for consumers and businesses. These developments are prompting organizations to make operational modifications to address health and safety measures for employees and fans moving forward. The focus of this report is on modifications in the space of payments.

Organizations are seeking advice on how to resume business in a changing environment that requires new processes and behaviors to create a safe environment that protects employees and customers by minimizing physical points of contact. These plans are being customized and delivered across several major industries including hotels, restaurants, travel, manufacturing, retail and entertainment[1]

This guidance is being met with great enthusiasm, as sports, entertainment, and retail landscapes, leagues, teams and live event companies plan how to return to the 'new normal'. Many operations are adapting — from restaurants replacing paper menus with QR codes that redirect to digital menus, retailers and fast food chains pivoting from in-store to contactless delivery and pickup, and everyday businesses highlighting the benefits of contactless payments.

Specifically, in the live entertainment segment, venue operators need to approach the fan experience differently and start identifying what matters to their business, and

to their fans.[2] Examples are recent announcements from several NFL teams noting that their stadiums will feature fully digital payments when they reopen for fans.

While momentum for touchless payments grows globally, it is important to understand how to bring touchless payments to life on a local level, especially as communities recover and consider hosting live events again. Now is the perfect time for stadiums to proactively implement touchless solutions in their operations, so when fans are ready and able to experience their favorite events in person, they can enjoy their visits. As such, **the aim of this report is to provide actionable guidance and informed best-practices on how stadiums can adopt touchless payments to improve the customer experience in light of the health crisis and prepare for an optimal experience going forward.**

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Evolution to Touchless Payments

How does a stadium become touchless?

It requires a holistic view of the venue's operations and evolving from a traditional cash & card hybrid payment system, to highlighting contactless preferred, to a 100 percent touchless fan experience integrated by technology solutions.

| Accepting Cash | Contactless Enablement | Touchless |

II. Everyone Wins When Stadiums Adopt Touchless Payments

Increase Efficiency

Digitizing payments creates operational efficiencies (i.e. reduction in hours to process and manage cash[3] and no need for armored vehicle transportation), along with savings from limiting cash-related fraud. In terms of hard dollar savings, these savings can equate to an estimated $150,000-$350,000 for stadiums who have made digital payments ubiquitous.[4] As an example of increased efficiency, within six weeks of implementing contactless payments, Costco cited member and employee satisfaction and improved checkout speed as an outcome of the implementation noting, "Saving even one or two seconds at checkout created shorter lines and improved cashier productivity.[5]

Drive Revenue

Digital payments make purchasing easier for fans, and when buying is easier, fans spend more. Fans at a stadium or arena spend 25% more when not needing to deal with cash for transactions.[6]

Safe and Secure

Having touchless payment systems installed builds confidence with fans knowing they can attend an event and avoid the need to exchange physical cash or coins. Touchless payments are growing in adoption with over 2 out of 5 (44 percent) of those with contactless cards using them more often than before the pandemic.[7]

Grow Fan Loyalty

Evolving to touchless payments opens doors as the first-party data associated with digital payments can reward fans when leveraged in a loyalty platform (including an in-venue mobile application such as what the San Francisco 49ers implemented at Levi's® Stadium[8]).

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III. 6 Steps to Implementing Touchless Payments

Here are 6 steps any stadium or venue can follow in order to be set-up for success and safety when it comes to implementing touchless payment experiences for their fans:

6 Steps to Implement Touchless Payments:

1. **Assess** current situation

2. **Convert** to contactless enabled terminals

3. **Digitize** traditional cash acceptance points

4. **Proactively** solve for fans who only have cash

5. **Communicate** to employees, fans, and other stakeholders

6. **Identify** additional opportunities that enhance the fan experience

San Francisco 49ers Move to Cash-Free

The San Francisco 49ers announced a move to fully cash-free transactions in venue for 49ers games. Levi's® Stadium will only allow card or mobile payments at concession stands, merchandise kiosks and anywhere else the fan will need to make a monetary transaction at such games.

Step 1: Assess Current Situation

A critical first step in planning to adopt touchless payments is to understand a stadium or venue's current payment ecosystem. Two major categories to review include:
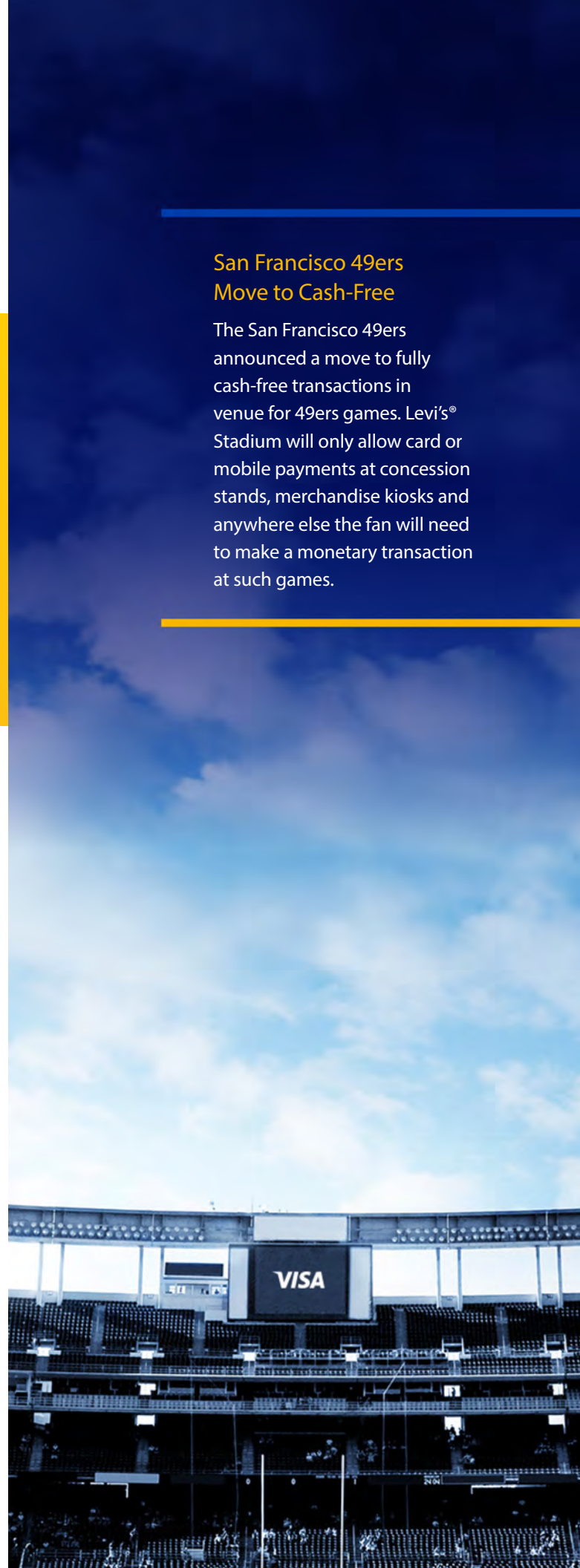
1. Payment Technology Overview: Is the stadium's current hardware (payment terminals) EMV Contactless capable?

2. Payment Partner / Stakeholder Review: Who does the stadium operator currently work with regarding payment-related upgrades and installations throughout the venue? These partners are important players in moving to touchless payments. It is important to gain alignment during the planning phase.

A 'Situation Assessment Checklist', found in the appendix, can be used as a guide for the situation assessment. The checklist will help determine if the payment terminals in your stadium are up to date and who your key partners are. These partners range from acquirers and processors to food and beverage and concessions vendors. It is also important to note that no two stadiums or venues are the same and each will require its own implementation plan.

Step 2: Convert to Contactless Enabled Terminals

Once the situation assessment is complete, the next step to implement a touchless payment experience is to ensure that all current point-of-sale terminals are updated to accept contactless payments. These systems enable fans to use contactless payments, which limit the cardholders' interaction with the terminal. Fans may use contactless payments when purchasing goods under the contactless limit amount applied to each specific region (e.g. £45 in the U.K., $250 in Canada, ₹2,000 in India, no limit for the US). Key implementation partners for this step include:

- Food and beverage hardware provider and the payment gateway

- Retail POS provider and the payment gateway

- Concessionaire (both food and beverage and retail)

Contactless Payments Overview

Contactless payments use near-field communication (NFC) technology where an antenna is embedded into a card, phone or wearable device and communicates with the terminal with a tap. For the payment to work, the contactless card or payment-enabled phone must be held within 1-2 inches of the POS terminal. The reader receives the card details and authorizes quickly and seamlessly, removing physical contact between the customer and the payment terminal or employee from inserting a physical card or handing over cash.

Added consideration: Strong, clear signage showing contactless acceptance at the POS helps to provide the most seamless fan experience. Additionally, venue operators might want to consider removing optional PIN pad prompts, reducing CVMs (Cardholder Verification Methods) to deliver a 'touchless' payment experience.

EMV Contactless capable terminals & cards can be identified by the Contactless Symbol on the POS terminal and Contactless Indicator found on each card as indicated on this image*

Contactless Symbol

Contactless Indicator

*The Contactless Symbol and Contactless Indicator are trademarks owned by and used with permission of EMVCo, LLC.

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In general, there are three different categories of upgrades to become contactless, depending on the current situation assessment. The categories and scope of work required in each vary based on the current situation.

Category Label	Costs	Notes
Category 1: Software Update	Typically included in baseline costs	• If a terminal has the EMVCo Contactless Symbol embedded on the hardware, only a software upgrade would be required. If you do not see the EMVCo Contactless Symbol, check with your terminal manufacturer to determine if your hardware is EMV contactless capable • Call your payment gateway service provider for a software update • Can be completed in under one to two weeks (depending on your provider availability)

Category 2:
Hardware Additions and/or Upgrade
	Contactless capable terminals can cost $500-$1000 each	• Costs vary depending on:
		  • A stadium's ability to complete a one-to-one swap of terminals, with the rest of the system intact
		  • A stadium's ability to add net new hardware points to existing system in order to achieve 100% digital payments
		
		• Can be completed in under 4 weeks

Category 3: Full Systems Upgrade	Custom costs, including CRM, inventory management, subscription fees and integrated terminals. Generally, require an investment of $500K-$3M	• Custom project requirements, including coordination of multiple parties not limited to software providers, app developers, gateway/POS providers, onsite/online retail providers and issuing (if applicable) and acquiring partners • Costs include initial installation and likely would include subscription service fees • Can take up to 8 months to complete

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Step 3: Digitize All Acceptance Points

Once all terminals have been converted to accept contactless, there may be outstanding areas within your stadium that accept cash. These acceptance points are recommended to be digitized to achieve optimized touchless payment experiences. Examples of these use cases are:

- Stadium "hawkers," mobile concession staff
- Restaurants, VIP, suite staff
- Tipping
- Parking
- Ticketing, sales booths
- Program stands, kiosks
- 50/50 raffles and other donations
- Concession stands
- Retail shops/boutiques

Below are examples of short-term solutions to convert traditional cash-heavy acceptance points to digitally led payments. The solutions can be done independently or in conjunction with one another. In each case, the fan experience is significantly improved by minimizing lines, crowds and wait time. There are additional operational benefits including increased revenue, decreased operational costs and improved data for loyalty programs that are also associated with digitizing all points of sale. It's important to note that network bandwidth should be evaluated, and redundancies should be put in place to ensure connectivity and support of increased data usage.

1. **Tap to Phone:** Enables smartphones, tablets and dedicated wireless devices to accept payments without the need for a full payment terminal. This enables stadium staff to use a Tap-to-Phone enabled mobile device to accept payments anywhere in the stadium.

2. **Order Ahead:** Provides fans with the ability to place orders in advance either through a mobile device, a kiosk or a virtual kiosk and choose a pick-up window. There is a health and safety benefit in reducing crowded lines and picking up an order at the designated time without any direct human interaction. This can be implemented by launching mobile web ordering with your food and beverage POS provider, integrating mobile API into a team app or with the installation of virtual kiosks. Fans can use an app on their mobile device or a mobile web ordering solution for a touchless experience.

3. **In-seat Delivery:** Similar to the 'order ahead' solution, fans can order in advance through a mobile device. Stadium staff are then notified of the order, for both preparation and completion. Once orders are complete, they are assigned an order number that is tied to the customer's seat. Like ride-sharing applications, designated delivery staff can select orders in their section and complete the delivery directly to the fan's seat.

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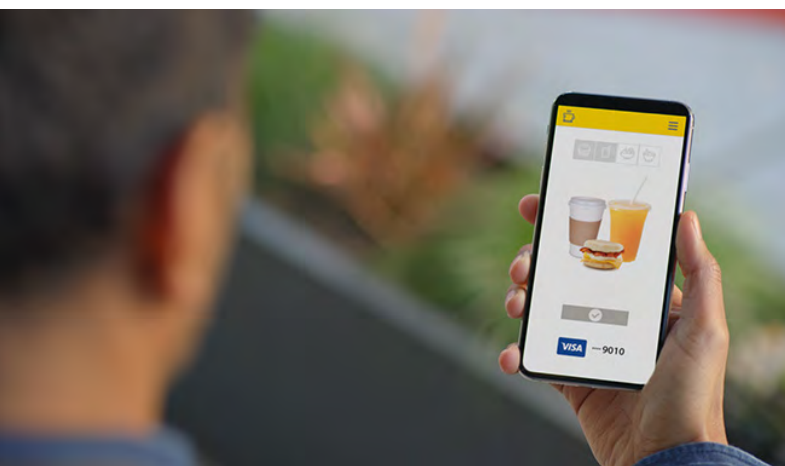
Step 4: Proactively Solve for 'Cash-Only Fans'

Efforts to provide a solution for those without a card are imperative and underway. It is important to operate as an inclusive venue, which provides world-class customer service and solutions to all fans. To this point, stadiums should communicate payment options well ahead of a transition to touchless and accommodate those fans who may arrive at a stadium with only cash.

Cash conversion machines (cash-to-card kiosks or dispensing machines) are a simple solution for cash acceptance. These kiosks are the reverse of an ATM; a consumer puts cash into the machine in exchange for a Visa prepaid card. The strategy for where to deploy the cash conversion machines should be evaluated on a case-by-case basis. For example, determine if you need kiosks on all floors or if there are some areas that tend to be more cash-heavy than others. Venues can expect a 1-3% usage rate for cash conversion machines across fans and guests of the stadium.[9]

Fan arrives to stadium with only cash

Inserts cash into a reverse ATM

Fan receives Visa prepaid product to use in-stadium

There are different types of prepaid products that can be dispensed. The consumer experience is seamless with a non-reloadable contactless prepaid card option. These cards are accepted everywhere Visa Debit is accepted. Additionally, stadiums can work with their issuer to allow consumers to provision digital prepaid cards to their mobile wallets.

The legal and regulatory landscape around cash acceptance requirements vary, particularly at the local level (e.g., state and city level). It is important for a stadium operator to understand what is required to comply with applicable laws and regulations. Consulting with local legal counsel should be a key part of your touchless planning.

Striving for Universal Financial Access

In 2015, global financial services companies pledged support for the World Bank's goal of achieving Universal Financial Access by 2020.[10] Payments networks, including Visa, met their commitments to bring hundreds of millions of people into the formal financial system ahead of schedule, specifically focused on the 25 countries where 73% of the world's unbanked population lives.

Often times these consumers are unbanked — meaning that they often do not have access to traditional financial tools, including cards. By providing cash conversion solutions, consumers can begin to take advantage of digital payment offerings creating an inclusive environment for all fans.

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Step 5: Execute Internal and External Marketing and Communication Plan

A pivotal step in successfully installing touchless payments systems is how a venue executes an internal and external marketing and communications strategy. The messaging released should incorporate the following principles:

Key Messaging Principles

Build the touchless payment benefit within a bigger picture narrative of seamless consumer experience, innovation, and stadiums of the future

Articulate the benefits of touchless payments in the stadium as it relates to the fan experience

Position the stadium as an industry leader in adopting touchless payments in response to COVID-19
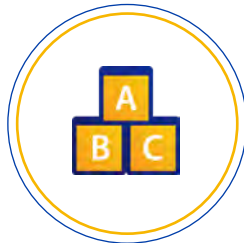
Demonstrate the ease of use of current contactless technology used today, why this makes sense for the market. In addition, ensure all relevant staff are trained and comfortable educating fans about the benefit of a contactless payment solution

Announce the transition early and often with a direct, interpersonal marketing and communications plan to fans and sponsors

Explain simple solutions for fans who come with cash, in the spirit of inclusivity

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Marketing across a mix of marketing channels is the most effective. Here are examples of channels to leverage, ordered chronologically in terms of when they should be utilized:

Channel	Tactics
Internal Communications and Training	• Provide top-down communication and instruction to all sales staff members on the tools and processes for a touchless payment environment • Staff should convey the touchless payment benefits including safety, security, and efficiency • Hold virtual training sessions for staff members to learn the touchless system, cash solutions, such as Reverse ATM, and ancillary payment services such as in-seat ordering • Deliver training with a focus on customer service, proactively plan on how to handle consumer inquiries or malfunctions
Retail Bank Sponsor	• Jointly communicate with the retail bank sponsor (if applicable) to ensure a positive fan experience • Discuss increasing contactless card issuance, cardholder and in-stadium communication and in/around stadium touchless payment solutions • Utilize all direct channels with fans
Media Events and Briefings	• Host media events, ranging from breakfast roundtable to exclusive press events • Provide visuals and lead executive voices to reinforce the venue is a leader in the stadium of the future space
Press Release	• Issue a press release highlighting the benefits for employees, fans and vendors
Email and Team Website	• Over communicate with fans and staff with emails, push notifications and banners clearly stating the new touchless payment procedures and solutions for those with cash
Local Ecosystem	• Use a community approach to touchless payments enablement including reminders from ticket resellers and in pre-paid card buying locations • Consider investing in the adjacent community, transit systems and small businesses to ensure a seamless experience for fans and tourists alike
Social Media	• Use social content to highlight the benefits of touchless payments • Remind fans of the fresh and new in-stadium experience • Show engaging player and coach in-stadium 'touchless payment' content
In-Stadium	• Utilize LEDs and POS branding to highlight touchless payments using players and former legends: in-stadium LED spots, in-concourse LED spots, POS signage (concessions, ticket office and retail)
Measurement	• Operators should measure the efficacy of the touchless payment marketing and communication strategy in the following metrics: • **Touchless Payments Awareness** (measures by research intercept survey): E.g., 75 percent of fan awareness ahead of game one; 100 percent fan awareness end of season • **Cash Solutions:** Decreased number of 'reverse ATM' uses, and prepaid cards purchased per game • **Business Metrics:** Understand revenue drivers: speed, efficiency, basket size, churn rates, and cost savings including cash handling and security

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Step 6: Identify Additional Opportunities to Enhance the Fan Experience

Live sports were undergoing a fan experience renaissance well before this health crisis. Faced with declining fan attendance and eager to reach new kinds of fans, stadiums have grown to become multi-use districts and shape consumer behavior and expectations, often times serving as one of the first places fans experience new technology. Contactless provides the underlying technology and data capabilities to stitch together the end to end fan experience.[11]

With touchless payments, fans can have a consistent and efficient way to pay for concessions and merchandise, generate consumer rewards and loyalty points, and do it all without counting change or handing cash to attendants. Beyond touchless payments, technology and social media continue to evolve how fans experience a live match, game or musical performance.

Stadiums need to create a place that fans can go and feel like they are the center of the stadium, have a personalized experience, are interwoven into a city, and are entrenched in culture, while forgetting about the logistics. Fans want to experience the stadiums of the future.

There are several longer-term opportunities that can be built into the touchless payment experience to further enhance the fan. These experiences vary in terms of the stage of the fan lifecycle as well as ease, time, and cost to implement. One benefit from the solutions listed on the next page is the ability to capture first-party-data*, which can be leveraged to understand the changing consumer preferences of fans.

*Any reference of data collection & biometrics must adhere to local privacy regulation such as consumer consent opt-ins

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Opportunity	Description	Impact	Time	Cost
3rd Party Wearables	Wearable payment technology allows consumers to make frictionless payments anywhere contactless is accepted. Wearables can come in the form of bands, rings, etc. A unique benefit of wearables is that they come with unique branding opportunities to further drive team loyalty and provide spending insights for teams with increased analytics. A retail banking partner is helpful to bring this option to life.	**Fan:** provides a fun touchless payment option for fans where they can show their team pride while paying and earn rewards for experiences. **Business:** initial investment can be offset by new revenue streams, sponsor branding, and increased customer throughput.	3-6 months	$
In-Venue Super App	Many sports teams are launching a venue-specific 'super app'. Along with the ability to learn more about a fanbase through the collection of first party-data*, these apps offer net-new revenue opportunities in terms of sponsorship integrations and loyalty programs. Other key features that drive the fan experience include in-seat delivery, digital tickets, OTT (over-the-top)/streaming content, gamification, digital issuance, etc.	**Fan:** improves fan experience by offering a one-stop shop for multiple solutions. **Business:** drives revenues through increased efficiency, along with providing an additional platform for sponsorship sales.	6-12 months	$$
Digital Ticketing	Digital Ticketing seeks to convert paper tickets to secure 'mobile-digital-contactless' to improve ticketholder experiences and minimize contact. Digital Ticketing allows stadiums to uncover new, cost-effective solutions that can be easily integrated and deployed with stadium technology partner. Digital tickets also integrate well with other solutions such as in-venue app, biometrics, or mass-transit. Ticket Sellers are able to seek new consumer loyalty and marketing opportunities with event venues and their technology partners.	**Fan:** improves fan experience by eliminating the need to carry a physical ticket and speeds up waiting times. **Business:** achieves cost savings related to issuance and maintenance (such as controls over secondary ticket sales and fraud mitigation), increases venue security, and grows fan loyalty and engagement.	6-12 months	$$
Biometrics / Walk-out Technology	Provide a "Grab and Go" experience by allowing fans to enter a designated shopping area with some sort of entry mechanism (i.e. facial recognition*), pick up the items they are interested in, and walk out without having to checkout in person. Cameras and sensors create fans' "virtual" shopping bag and send an emailed receipt with the goods they purchased.	**Fan:** improves safety and overall experience by limiting direct human contact with employees and shorter checkout lines. **Business:** Improves safety for employees by limiting human contact; fan perception of stadium innovation.	12-24 months	$$$
Urban Mobility	Faced with declining fan attendance and eager to reach new kinds of fans, stadiums have adopted to become multi-use districts. These new facilities boast multiple restaurants, bars, hotels, and mass transit. A natural extension to touchless payments in-stadium is to extend to the surrounding businesses and transit stations. These solutions can enable fans to use a single end-to-end payment solution to allow for one payment option to pay for transit, stadium ticket, and purchases in and around the stadium.	**Fan:** standardizing the payment and ticketing behavior in-stadium and beyond which ensures that the fan journey is efficient and simple. **Business:** interacting and driving commerce with local government (transit), and small businesses in the stadium's vicinity promotes leadership	12-24 months	$$$

As engagement increases and commerce is digitized, network connectivity and reliability are critical. It is recommended that virtual servers are installed as well as having reliable backups.

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IV. Conclusion

In-Summary

- Live events will always play a key role in driving innovation by shaping consumer behavior and expectations

- There has never been a more important time to build fan and employee confidence

- Touchless payments are a step to re-open stadiums this year; implementation requires coordination and integration between existing hardware and software with new services and solutions

- If done correctly, the implementation of touchless payments can be a win-win solution for all involved:

    a. Enhances the fan experience through faster, touchless payment methods that allows them more time to focus on the game

    b. Increases top line revenues for stadiums

    c. Saves money through operational efficiency

    d. Accelerates the growth of contactless and touchless in the stadium's local community

    e. Provides a more secure experience for consumers and vendors

    f. Lays the foundation for stadiums to optimize the fan experience going forward

To learn more about Visa's touchless stadiums solutions, please reach out to the Global Sponsorship Business Development team: globalsponsorshipbusinessdevelopment@visa.com

Situation Assessment Checklist for Stadium Operators

Technology Overview

Assessment Category	Examples / Guidance	To be completed by operator
Stadium Name & Location	*Levi Stadium, San Francisco, California*	
Are the current payment terminals EMV Contactless capable?*	*EMV enabled device examples currently found in multiple NFL stadiums include: Ingenico iPP350 or Telium series, Verifone VX series, Square registers/terminals, etc.*	
Approximate number of Fixed Concession Terminals	*500-1000 POS terminals (NFL Avg)*	
Approximate number of Mobile Terminals	*Hawkers, 50/50 draw, corporate events*	
Approximate number of Retail Terminals	*50-100 POS terminals (NFL Avg)*	
Unique Point-of-Sale Requirements	*Parking, Stadium Village, Other*	

Partner Overview

Assessment Category	Examples / Guidance	To be completed by operator
Retail Bank Partner	*Chase, M&T, Bank of America, PNC, etc.*	
Concessionaire	*Aramark, Levy, Delaware North, etc.*	
Food & Beverage POS	*Appetize, NCR, Oracle/Micros, etc.*	
Food & Beverage Payment Gateway	*FreedomPay, Marchant Link, etc.*	
Food & Beverage Processor	*Fiserv, Elavon, Chase, etc.*	
On-site/Online Retail Partner	*Fanatics, Delaware North, In-House, etc.*	
Retail POS	*Oracle/Micros, RetailPro, etc.*	
Retail Payment Gateway	*FreedomPay, Adyen, etc.*	
Retail Processor	*Fiserv, Elavon, Chase, etc.*	
E-Commerce Retail Partner	*Fanatics, etc.*	
Software Partner	*Venue Next, Venuetize, YinzCam, etc.*	

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Glossary of Terms

Acquirer: A bank that signs a merchant or disburses currency to a Visa cardholder in a cash disbursement, and directly or indirectly enters the resulting transaction receipt into interchange.

API: An Application Program Interface (API) is a software intermediary that makes it possible for application programs to interact with each other and share data. It is similar to the way the user interface facilitates interaction between humans and computers.

ATM: An automated teller machine (ATM) is an electronic banking outlet that allows customers to complete basic transactions without the aid of a branch representative or teller.

Biometrics: A form of POS technology that uses biometric authentication to identify the user and authorize bank account access. Biometrics can take the form of voice, fingerprint, cognitive behavior, heart rate, motion, finger vein, palm, iris, or eye print.

Concessionaire: A person, group or company who own and operate a concession inside of a stadium. An example would be the company that runs food and beverage sales within a venue.

Contactless Payments: A card-present acceptance channel that uses a specialized point of sale (POS) device that can communicate with a contactless-enabled card to facilitate purchase transactions. Traditional POS devices read the magnetic stripe via a card swipe or the EMV chip via a card dip, while contactless transactions require the presence of the card near the terminal, but do not physically interact with the device.

CRM: Customer Relationship Management (CRM) is an approach to managing a company's interactions with current and future customers involving the use of technology to organize, automate, and synchronize sales, marketing, customer service, and technical support.

EMV: The specification(s) for chip cards, also used to refer to products and programs that follow the specifications. Originally EMV stood for Europay, Mastercard, Visa (the joint developers of the original specification); but as of a few years ago, it is no longer considered an abbreviation. EMV is a registered trademark of EMVCo.

First-Party-Data: Data collected directly, or first-hand, from a company's consumer base or audience. Can include demographic, payment and other information. Must follow local privacy laws and regulations, typically including 'opt-ins' to share and utilize data for marketing purposes.

Hawker: A person selling goods outside of a traditional concessionaire, an example being mobile vendors walking up and down the stands, or around the stadium to sell food and beverage.

Gateway: A merchant service provided by an e-commerce application service provider that authorizes credit card or direct payments processing for e-businesses, online retailers, bricks and clicks, or traditional brick and mortar.

In-venue Mobile Application: A mobile application developed for use inside and around a certain venue. Can host a myriad of capabilities (see page (11).

Network Bandwidth: The rate of successful data transfer through a communication path, typically measured in mega-bytes per second.

POS: Point of Sale – refers to the place where a customer executes the payment for goods or services.

POS provider: The company producing and providing a POS system, or hardware required to accept payments.

Processor: The source providing authorization, settlement data transmission, security and connection to payment networks.

Tap-to-Phone: A payment solution to turn widely available smart phones into anywhere, anytime digital point of sale terminals.

Terminals: A device which interfaces with payment forms to make electronic funds transfers.

Touchless Payments: refers to any form of payment that doesn't require customers to physically exchange currency or plastic products in order to make a payment.

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Appendix

1 Sports Innovation Labs: Smart Venues Require Smarter Operations Report, March 2020.

2 Sports Innovation Labs: Smart Venues Require Smarter Operations Report, March 2020.

3 Visa/Roubini Thought Lab: Cashless Cities. Realizing the Benefits of Digital Payments.

4 https://www.sportsbusinessdaily.com/Journal/Issues/2020/05/18/Facilities/Cashless.aspx

5 https://usa.visa.com/dam/VCOM/global/support-legal/documents/costco-members-tap-into-the-future-of-checkout.pdf

6 Venuetize historical data, 2018.

7 Visa Consumer Insights study on COVID-19 impacts, April 2020.

8 https://www.49ers.com/news/levi-s-stadium-cashless-venue-visa-partnership

9 https://usa.visa.com/visa-everywhere/global-impact/reaching-universal-financial-access.html

10 Self Service Network historical data, 2020.

11 Ruggiero, A. (2020). Smart Venues Require Smarter Operators. Sports Innovation Lab.

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