



# Improve the Event Attendee Experience – and Your Profitability – with NFC

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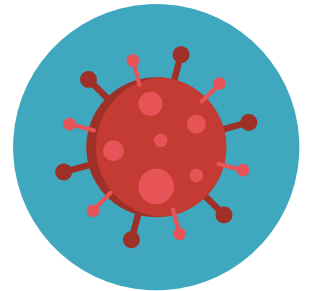
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## An industry rocked by COVID-19 navigates its way back

The year 2020 was an unexpectedly challenging one for the event industry. The global coronavirus pandemic caused travel bans and lockdowns that kept theaters, stadiums, and arenas largely empty for months – with still no end in sight. Attempts to host safer, socially-distanced events (when not totally banned) had mixed success with attendees largely, and perhaps wisely, staying away.

No one expects this situation to continue forever. The availability of effective COVID-19 vaccines will allow for life to slowly return to normal and entertainment venues to reopen. But as Rick Cordella, chief revenue officer of Peacock TV, expressed it in a [Foreign Policy article](#) on the future of live entertainment, “Even after there is a vaccine, some fans may not want to wait in long lines and sit shoulder-to-shoulder with 60,000 strangers.”

As the event industry works to rebuild business and public trust in the post-COVID era, event producers and venues will have a technology available to them to help put attendees at ease, promote better health and safety, and lower operating costs: Near Field Communication (NFC). Read on to discover all the ways that NFC and its touchless operation offer value for the event business – now more than ever.



## Event stakeholders and their needs

As entertainment options multiply and consumers are able to enjoy a broader range of viewing choices in their own homes, organizers of live events are under increasing pressure to deliver compelling, unique customer experiences that cannot be replicated. At stake is a \$1.8 trillion-dollar global industry that includes musical concerts, festivals, sporting events, and more.

There are three primary sets of stakeholders in the event business: consumers; event producers and venues; and performers, teams, exhibitors, and brands. Each of these sets of stakeholders has its own needs, preferences, and challenges.



## Consumers want a better experience

In the competitive entertainment marketplace, “live” venues must offer more to attract the attendance of always-connected consumers. Today’s event attendees are seeking more for the price of admission, including:

- Easier, faster event access with less queuing and waiting;
- Shorter lines for refreshments and merchandise;
- Frictionless onsite commerce;
- More touchless interactions to avoid contracting illnesses; and
- Access to more personalized content and special offers for the most loyal fans.

## Producers and venues want to deliver better experiences profitably

Event producers and venues need to fulfill the consumer needs and preferences above – and still keep ticket prices affordable – while addressing their own set of business challenges. Their list of needs includes:

- Delivering a better customer experience;
- Achieving greater efficiency to keep costs under control;
- Ensuring better security against increased risks;
- Reducing counterfeiting to minimize losses;
- Preventing “superspreader” events that negatively affect business and reputation; and
- Increasing profitability to sustain the business.

## Performers, teams, exhibitors, and brands want to maximize business opportunities

With skyrocketing athlete salaries, lower revenue from the sale of recordings, and the rising cost of touring, performers and sports teams want to earn more revenue from events. Event exhibitors and product brands that sponsor events want to leverage their presence at events for more targeted marketing. That means all of these groups need to find ways to:

- Build and strengthen their connection with fans/customers;
- Reward fan/customer loyalty;
- Generate incremental revenue beyond ticket earnings;
- Ensure a safe and healthy experience for their fans; and
- Gain real-time fan/customer data to analyze for new insights.

NFC technology offers a proven solution that addresses all of these needs for all of these event stakeholders. This white paper addresses the many creative use cases and benefits of NFC technology for the event business.

## NFC Event Applications and Use Cases

NFC technology supports a wide range of event-related applications and use cases, helping to maximize the efficiency, enjoyment, security, and profitability of each event. These applications and use cases fall under four categories: Event Access, Cashless Event Commerce, Merchandising, and Customer Experience.

### Event Access

NFC provides a single technology that supports multiple form factors and event requirements, meeting the needs of both consumers and event organizers.



## Mobile Ticketing

Event venues have begun phasing in NFC-based mobile ticketing to offer customers greater convenience and easier event access while reducing paper waste. Users purchasing tickets can load the tickets on their smartphones and tap them on NFC readers at the venue when they arrive.

For example, Germany's Allianz Arena, home of the FC Bayern soccer team, recently began supporting NFC mobile ticketing with Apple Pay. At the arena, customers can also use Apple Pay to purchase refreshments and merchandise. FC Bayern's chairman has said that the ultimate goal is to eliminate paper tickets.

In the United States, Tickets.com and technology provider Infinite Peripherals are teaming up to implement mobile ticketing at Major League Baseball stadiums after a pilot at the Oakland Athletics' Oakland Coliseum. Better security and lower risk of counterfeiting were cited as major reasons for the initiative.

## Contactless Event Access

Because NFC tags can be embedded in everyday objects, event tickets can take the form of smart cards, wristbands, smart paper tickets, souvenir items, and customized tags. NFC-based tickets work with a browser experience or with smartphone apps that offer notifications, directions to the stadium, maps for navigating the building, restaurant menus, discounts on beverages, and more. Ticketholders can plan their in-stadium activities ahead of time and view special content produced just for them. Interaction with the ticketholder is possible via in-app push messages before, during, and even after the event. Or consider NFC tickets with electronic tamper evidence, which enable tailored digital messages upon an NFC phone tap, based on whether a ticket got validated and torn, or is still intact.

When fans arrive at the stadium, the contactless ticket can offer hassle-free access to parking areas. Entering the stadium is quick, easy, and touchless, since a simple tap is all that's needed to validate the ticket.

Season ticket holders and VIPs can use their contactless tickets for extra benefits, such as access to special hospitality lounges or opportunities to meet players/artists. Receiving special insights and notifications, based on real-time data, gives ticketholders a sense of belonging, and being more in control of their live game-day experience, even in a stadium filled to capacity.

At the [FIFA World Cup Russia 2018](#), NFC-based event access was offered via NFC tags embedded in match tickets, offering faster access than barcode or QR tickets and enhanced security to help thwart counterfeiting. NFC technology was also chosen to enable connected experiences with the Official Match Ball. NFC technology allows consumers to interact with the ball using their phones, to display specific details of each ball and provide access to challenges, which users can enter in the run-up to the competition.

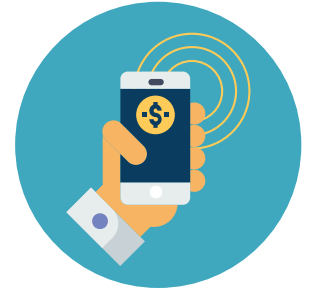
## Cashless Event Commerce

Refreshment and merchandise sales are a vital component of events – but cash sales create long lines and delays and pose theft risks. No one wants to miss a key play or a favorite song just because they're stuck in a concession line.

That's why venues are turning to NFC in smartphones, wristbands, or other wearables to pay for purchases with a tap. These touchless transactions can be based either on global EMV specifications or proprietary e-wallets managed by the event organizers, both with different benefits for the organizer but serving the aim of faster transactions and shorter lines. By helping shorten concession stand lines, NFC also works to increase sales. Deploying NFC requires little additional investment because seamless NFC POS infrastructure has already been built up globally.

But the uses of NFC go beyond simple commerce. Purchases can also be linked to loyalty programs, with earned points immediately being credited to a phone app, thereby increasing customer loyalty and positively contributing to spending habits.

Northern Ireland's [Jika Jika!](#) music festival [boosted spending per attendee by 23 percent](#) in 2018 over 2017 by employing an NFC-based cashless payment system.



## Merchandising

Changing economics have made merchandise sales a more important source of revenue for touring artists and sports teams. Today, touring artists earn between 10 and 30 percent of their revenue through merchandise sales<sup>1</sup>. NFC is a powerful tool to help artists, teams, and brands earn more from their event merchandising.

One way NFC does that is by enabling product authentication. Many events provide opportunities to buy and sell merchandise to a targeted audience. However, they can also provide opportunities for counterfeiters to dupe unwary buyers of merchandise products and sought-after event collectibles. Attaching NFC tags with security features to products enables potential buyers to confirm their authenticity by a simple NFC phone tap.

A good example is Sneaker Con, a series of hugely popular global events for athletic shoe fans. Organizers created a "[LEGIT tag](#)" to enable NFC authentication in the trading area. Potential shoe buyers were able to tap the tags in real time to be assured their purchases were the real thing.



## Customer Experience

It used to be that the event experience was what happened when the curtain rose or the ball was put into play. Not anymore. Now, NFC can extend the event experience – before, during, and after it occurs – to engage, inform, and strengthen the bond with attendees and event hosts. NFC enables organizers to connect visitors with the event through specific location- and time-based information for event-based social campaigns, "live" voting, polls, and drawings. In addition, tapping data can be leveraged by organizers and brands to gain new behavioral insights to further tailor marketing messages to customers.



1 <https://tonedeaf.thebrag.com/just-how-much-do-artists-earn-from-merch-these-days/>

## Deeper Product Engagement

With NFC, event-related merchandise can act as a channel to strengthen fan loyalty and extend the customer experience. By embedding NFC tags in branded products, the products themselves can deliver time- and location-aware services, personalized experiences and special rewards for product ownership.

For example, in 2017, Nike introduced its [NikeConnect NBA jerseys](#) equipped with NFC-enabled labels. When basketball fans tap their smartphones to the label, it unlocks real-time, personalized experiences that strengthen their connection to their favorite players, including: pregame arrival footage; highlight packages; players' music playlists; special offers; and exclusive deals.

In 2018, Adidas followed suit with its Telstar 18, the first [NFC-enabled Official Game Ball](#) for the 2018 FIFA World Cup. Fans who purchased the balls could tap their smartphones to the ball to participate in special competitions and challenges before the soccer tournament. Adidas kept refreshing the content over time to maintain interest and generate more excitement for the fans.

## Interactive Event Signage

In today's connected world, people can use their NFC-enabled smartphones to get more from their event experiences. NFC-enabled interactive signage can help guide attendees through the venue, providing helpful information to enhance their experience, or giving attendees an opportunity to join fan clubs, access exclusive content, or get special offers.

For example, when the Lévy Gorvy Art Gallery hosted its "Warhol Women" exhibition, organizers used NFC to deliver [interactive, contextual digital experiences](#) to enhance attendees' enjoyment of the exhibition. Visitors could explore additional information on the artwork based on their location in the gallery. They could also access a Spotify playlist of Warhol's favorite music specific to each floor. The songs worked together to provide a unique sonic context to the work.

# Strengthening the Link with Fans Before, During, and After the Event

In the past, an event was a one-time experience. Organizers, performers, and teams could do little to engage fans before it occurred – and when it was over, it was over.

However, now with NFC, sports teams, artists, brands, and venues can make the impact of an event begin earlier and last longer. This can help create, strengthen, and extend the link with fans. Here's an example of how it can work:

### Pre-Event

- Engage fans earlier and encourage early event sales by offering a special promotion ("Buy your ticket by August 1<sup>st</sup> and get a souvenir NFC wristband that entitles you to a free event poster redeemable at the event or discount on merchandise/refreshments").

### During the Event

- Let fans use their NFC-enabled devices/tags to access an exclusive VIP lounge.



- Provide NFC smart posters to help fans navigate the event.
- Enable fans to tap NFC smart posters to sign up for a mailing list or download exclusive content in exchange for contact information.

#### Post-Event

- Let fans use NFC wristbands or NFC-embedded merchandise purchased at the event to access exclusive online content, video highlights from the event, get discounts on post-event merchandise purchases, or get access to tickets for future events.

## Technological Considerations

Adoption of contactless ticketing is accelerating. A new study from Juniper Research found that contactless ticketing users will reach 468 million by 2023, up from an estimated 180 million in 2019. It has been forecasted that one in four digital tickets purchased in 2023 will be contactless<sup>2</sup>.

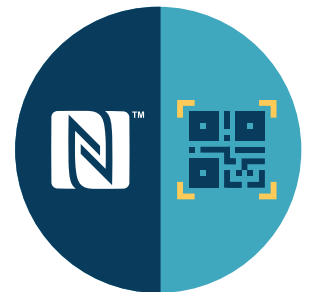
Much of this trend is due to venues and event producers seeking to make operations more efficient. But it's also because event attendees are staying more connected. They are always on their smartphones, looking to share experiences socially online and explore new ways to use their devices.

Currently, venues and event producers seeking to fulfill these needs have two technology choices: NFC or QR codes.

## Two Distinct Technologies

While NFC and QR have some applications in common, they are very different technologies, each with its own capabilities:

- QR codes are printed codes that a smartphone can optically scan and interpret to open a website or application. QR codes work in conjunction with a scanner application on users' smartphones. QR codes can be static (the stored destination/data cannot be changed, as in printed codes) or dynamic (using a mobile device to display a code with a different code generated each time in the backend or on an app-equipped local device).
- NFC is a standards-based wireless connectivity technology that enables short-range interaction between consumer electronics, mobile devices, personal computers, electrical appliances, and NFC-compatible tags. Built into most commercially-available smartphones, NFC operates in three modes: card emulation (for payment and ticketing), reader/writer (for reading information stored on low-cost or feature-rich NFC tags), and peer-to-peer (for two NFC-enabled devices to communicate with each other).



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2 <https://www.juniperresearch.com/press/press-releases/contactless-ticketing-users-reach-468-million-2023>



## Factors to Consider in Choosing a Technology

### Speed

One of the most important reasons to implement contactless ticketing is to accelerate the process of collecting tickets and admitting attendees to an event. Even a fraction of a second saved per transaction can add up quickly, enabling more orderly queues and better crowd management while reducing security needs and improving safety.

On speed, NFC is the clear winner. NFC transactions can take place in as little as 150 msec. QR is fast, too – but [just not as fast as NFC](#). Because NFC works via radio frequency, not optical scanning, it is not subject to the reading issues of printed codes.

### Security

As ticket prices rise and events sell out in minutes or hours, the value of tickets increases and counterfeiters become more motivated to defraud consumers. Here, NFC has clear advantages over QR, supporting encryption schemes, reading and cloning protection, and biometrics.

In contrast, QR codes can be copied, tampered with, and used fraudulently. This can cause losses for merchants, ticket providers, and consumers. Even dynamic QR codes fall short of NFC security.

### Multiple Application Opportunities

In judging the value delivered by a technology, event producers should consider how many applications that technology can support. [Unlike QR codes](#), advanced NFC technology can handle multi-use applications. For example, a single NFC tag can handle secure venue access, cashless payment for event merchandise and refreshments, as well as live feeds and post-event social engagement to enhance the customer experience. A QRC based application will be not capable to store the data necessary to support such multi-application use cases.

### Closed-Loop Payment

Large crowds and long lines can ruin the event experience for attendees. One way to increase the speed of transactions for merchandise and refreshments is via a closed-loop payment system. Such a system is speedier than traditional credit card payments and it can continue to function even if the payment network goes down. NFC supports both closed-loop and open-loop payment systems.

### Total Cost of Ownership

While QR scanners are more affordable than NFC readers, they are more subject to breakage and require regular cleaning, adding to the maintenance cost. NFC readers are much more robust and require no regular maintenance, making them especially suitable for outdoor use.

### Staffing Requirements

Because QR code scanning takes longer than NFC – and optical scanning requires more supervision than NFC transactions – venues and event producers will likely require more staffing with QR than with NFC. In fact, it is even possible to have unattended NFC reader gates; whereas QRC gates cannot usually go unattended.

### Seamless Integration in Different Products/Form Factors

QR codes exist only as printed codes on a 2D surface, usually paper. NFC offers a broader range of products and form factors to choose from, from wristbands to custom collectibles to smartphones and watches.

### Opportunities for Branded Fan Merchandise

NFC enables artists, teams, and brands to add a fun element for their fans by deploying NFC tags embedded in branded merchandise and wearables; QR does not. As no line of sight is needed, tags can be added easily and aesthetically integrated into physical products.

## A Better Event Experience for Everyone

When it comes to events – especially now in the post-COVID era – NFC offers something for everyone:

- **For venues and organizers:** NFC enables smoother, more efficient, more profitable and safer events.
- **For artists, teams, and brands:** NFC creates opportunities for generating incremental revenue, strengthening fan loyalty, and expanding the existing fan base.
- **For fans and audiences:** NFC ensures a better experience, with less hassle, the opportunity to access additional value-added content, shorter lines, increased safety, and more enjoyment.

To learn more about how NFC can help you achieve your event goals, visit the [NFC Forum website](#).

