Eventbrite

The Event Organiser's Comprehensive Guide to RFID Technology



Fans today demand a more engaging, interactive event experience — and RFID delivers. From getting attendees inside faster to streamlining behind-the-scenes operations, the tech transforms the experience for both fans and staff. Once only accessible to the world's largest music festivals, events of all types and sizes have started to implement the technology.

So, should you implement RFID? This guide will help you decide whether to invest in RFID for your event — and how to get the most from the technology if you do. Whether you're an RFID newbie or a pro looking to expand your activations this year, you'll find the answers you need here.



Table of Contents

What is RFID? 03

What are the top 10 benefits of RFID for your event? 04

How to know if RFID is the right investment for your event 08

When less cash means more money:
A deep-dive on cashless payments 09

How can you choose the best RFID provider? 13

How to get started 15

01. What is RFID?

Radio Frequency Identification (RFID) is only just beginning to transform events, but the technology itself is nothing new. The wireless technology was actually first developed in the 1970s, and you may be more familiar with it than you realise. RFID is in hotel key cards, highway toll collection systems, employee badges, and more.

RFID works by enabling a chip to communicate with an RFID scanner via radio signals. At events, the RFID chip is usually embedded in either a wristband or badge, and scanners (or "readers") are positioned at entrances and exits, as well as VIP zones and other areas inside the event.

You might have seen people paying for drinks with the tap of their wristband at a festival, using their badge to get into a panel at a conference, or just speeding through an event entrance thanks to their RFID chip. You may have even seen festival goers use a wristband to post updates or photos on social media.



How it works: Long-and short-range RFID

There are two main varieties of RFID chips: long- and short-range. Short-range chips need to be placed within a few inches of the reader to be scanned. Long-range chips only need to be within about 30 feet of the reader.

Most events will find short-range RFID tags to be better suited for their needs and infrastructure, with two exceptions. To time participants in a race with RFID, you need a long-range chip. You would also need long-range RFID to create a heat map of where attendees spend the most time on-site. However, there are other technologies that can enable heat maps (such as beacons) without the expense and complicated setup of long-range RFID.

2. What are the top 10 benefits of RFID for your event?

Unlike most event technologies, RFID has the potential to transform every aspect of your event. Beyond streamlining entry, RFID enables attendees to connect with you, your sponsors, and each other in new ways. Attendees can register their RFID wristband or badge to link it with their emails, social media profiles, and even their wallet — opening up a whole new world of possibility on-site.

Here are the 10 most exciting things you can do with RFID at your event:

1. Get fans inside quickly.

No one enjoys waiting in lines. One of the best things about RFID is that it can seriously speed up event entrance. When SnowGlobe music festival switched to RFID, they were able to scan in more than 20 people per minute at each gate. That's upwards of 1,200 people per hour for each scanner.

With RFID, attendees simply wave their wristband or badge over a sensor to get in. No more digging in purses to find tickets, or struggling to make scanners process wet or wrinkled barcodes. The tech can seamlessly handle re-entry for multi-day events, or provide easy access to multiple zones within an event (like a VIP area).

This also makes it easier for your security team, who no longer has to be trained to operate and interpret scanning equipment. Instead, the RFID equipment simply lights up green ("go") or red ("stop") when scanned. This reduces the human error of ticket scanning, and helps cut down on staff needed at the gates.

2. Improve your event with real-time insights.

RFID gives you immediate insight into how foot traffic flows through your event. For multi-day events, this means you can use RFID data from the first day to change your gate layout or add extra lanes. The data can help organisers learn where to place concession stands, toilets, and sponsor booths to eliminate bottlenecks within the event — or to figure out which performers or speakers were most popular.

3. Eliminate fraud.

Unlike traditional print-at-home tickets, RFID chips have a unique identifier that makes them nearly impossible to duplicate — making counterfeit tickets a thing of the past. And if attendees lose their tickets, you can help them without worrying about copies. Since the tickets are associated with individual IDs, you can instantly deactivate the lost wristband or badge and issue a new one.

4. Go cashless.

Forget long lines at ATMs, or fans taking out their wallets time and time again. Now they can pay for food, drinks, or merchandise with a simple tap of their wrist. Attendees can add their payment information to their RFID tag before the event, making it easier than ever to buy. And because guests don't have to carry cash or drink tickets in their pockets, they can stop worrying about loss or theft, and focus on enjoying your event.

5. Put the spotlight on social.

Once fans associate their social media profiles and emails with RFID, there are endless ways to engage on-site. By tapping their wristband or badge at an RFID check-in kiosk, attendees can automatically post pre-written tweets, Facebook posts, or Instagram photos of the event. An attendee swipes their wristband or badge, and can immediately share how much they loved one vendor's craft beer, or flaunt their wacky photo booth creations. The easier you make it for attendees to share, the more free publicity your event gets.



6. Strengthen connections with sponsors.

RFID creates new ways for sponsors to engage your attendees in fun and interactive experiences. With RFID, attendees can enter raffles, join competitions, or "vote" in a poll, all by simply tapping their wrist or showing their badge. This also allows sponsors to gather data without being intrusive. The best news for your sponsors? It's easier than ever for them to track traffic to their booth and measure return on investment.

7. Expand the VIP experience.

You may want to give VIPs an elevated customer service experience. RFID allows you to resolve their customer service requests wherever they are on-site. Using handheld devices, your staff can look up and replace wristbands as soon as VIPs have an issue.

RFID also opens up new doors to drive revenue by offering on-site VIP upgrades. In the future, you could use RFID to let General Admission attendees instantly upgrade their access level to gain entry to a VIP area. That means happier attendees, and more revenue in your pocket.

8. Simplify the box office and check-in process.

No attendee wants to wait in line for hours on-site to pick up their badge or wristband. With advanced fulfillment, badges or wristbands come right to your attendee's home. Instead of box office complaints, you'll be seeing excitement all over social media when attendees receive the package weeks before the event. And for events with lots of last-minute sales, organisers can speed up fulfillment by assigning RFID badges and wristbands to attendees as they arrive on-site. Instead of searching for a pre-assigned badge or wristband for each attendee, staff can use a mobile app to assign RFID on the spot — eliminating chaos for staff and getting attendees inside faster.

> "RFID was such a tremendous relief for customer service. For the first time ever, we didn't get any complaints about the box office. I usually anticipate spending the first night responding to complaints. But this year I didn't have to deal with any, which freed me to respond to other issues.
>
> — Jeffrey Lesan, CMO, SnowGlobe

9. Impress your attendees.

There's no denying one of the biggest draws of RFID: it ups your event's cool factor. The moment fans receive their RFID wristband or badge in the mail, the excitement for your event begins to build. And after the event, many people love to keep RFID wristbands on for months to remember the awesome experience. RFID badges can sit on attendees' shelves year-round as a memento. If you get creative with design, you can generate loyalty among existing attendees — and spread serious FOMO to everyone else.

10. Get to know your audience on a whole new level.

Because attendees often buy tickets in bulk or register as a group, you potentially only collect data on the ticket purchaser. That prevents you from truly understanding who your attendees are. With RFID, all individuals are encouraged to register their wristband, even if someone else bought their ticket. That means more email addresses to use when marketing future events, and more information you can use to prove value to sponsors.

People often link their wristbands to social profiles, giving you the opportunity to gain a deeper understanding of your audience. Combined with the ability to see where attendees spend the most time at the event, you no longer have to guess what your attendees are engaging with and excited about — you'll know.

With all these new insights on your attendees' behavior, RFID enables you to make each year's event bigger and better. But how can you tell if it's right for your event?



3. How to know if RFID is the right investment for your event

The applications and benefits of RFID can uplevel all types of events. Beyond festivals, many conferences are already using RFID in badges, and comic cons and conventions like Techweek are implementing RFID this year.

While the technology is rapidly becoming more affordable, it still takes commitment to succeed with RFID. Here's how to know if you're ready to take the leap now, or if yo should wait a couple of years before investing.

First, check all of the below boxes that apply to your event:

- ☐ The benefits of using RFID (listed above) are important to your goals
- ☐ There are more than 10,000 attendees at your event — or you're willing to invest in your smaller, fast-growing event
- ☐ You're willing to spend at least $3 per attendee on the RFID technology (or pass on the cost in the ticket price)
- ☐ You have the budget for additional RFID-related investments in staff and infrastructure
- ☐ Your event has multiple zones or sessions (for example, General Admission and VIP
- ☐ Attendees re-enter your event multiple times (for example, over multiple days)

Did you check most of the boxes?
Congratulations — your event is ready for RFID! Your event is large and complex enough to make RFID worth it, and you are willing to make the investment. Keep reading to find out ways you can activate RFID at your event, and how to choose an RFID provider.

Did you check fewer than three boxes?
You may be able to achieve your goals more efficiently with other technologies. Both streamlining entry and getting real-time event data, for instance, can be done with a free app like Eventbrite's mobile box office and scanning solution. These free apps are a way to turn your box office and entry lines mobile without any additional investment.

If you're eager to take your event to the next level, never fear — RFID will likely becomemore affordable and easier to deploy in the coming years! You may not be quite ready to invest in RFID yet, but you should reevaluate in a year or two. Technology can progress a lot in a year, and so can your event.

4. When less cash means more money: A deep-dive on cashless payments

When does less cash mean more money? When you enable RFID payments that make it as easy as possible for attendees to spend. There are three ways cashless payments can make your RFID investment pay off:

1. You'll make more money.

Research shows fans spend up to 20% more on-site when they're using RFID payments instead of cash, so you can satisfy their cravings while cashing in.[1] RFID also opens up new opportunities to capitalize on attendee FOMO. For example, you could give attendees a peek at what's in the VIP area, then offer them the chance to upgrade instantly if they want to indulge.

2. You'll give attendees a seamless experience.

It may not seem like it takes long for attendees to take out their wallets in line, but even a minute saved adds up across hundreds of purchases. When fans pay for purchases with a tap of their wrist, lines flow smoothly. And since RFID tags are unique and nearly impossible to duplicate, there's no need to worry about theft. If attendees lose their wristband or forget their pin number, they can change it in real-time or deactivate the band, so it doesn't impact their experience.

3. You'll enable vendor transparency and accountability.

When vendors use cashless payments, you get visibility into everyone who's touching money on-site. Even if your event isn't totally cashless, a point of sale system at each vendor ensures that cash and non-cash payments are being tracked in one place.

This also enables real-time inventory management. With insights into what products are selling out fastest and where, you can restock more efficiently and plan better for future years. This way, concessionaires can deliver products to the right booths to make sure they're always stocked. Say goodbye to selling out of your fans' favorite beer

Of course, cashless isn't right for everyone. So what do you need to consider before going cashless?

You have to spend money to make money. Investing in a high-quality RFID technology that enables cashless payments isn't cheap. It can be tempting to go for the least expensive solution, but you can't do cashless halfway.

1. Be wary of providers that skimp on infrastructure or support.

If something does go wrong, you might have to stop sales and disappoint your attendees in the process. Vendors who have a bad experience may abandon the tech altogether, and be reluctant to go back to your event in the future. Choosing the "cheapest" option on paper might cost you in the end.

2. You'll need more advanced infrastructure.

Supporting cashless payments takes power, internet, and personnel. Just like with credit cards, you need to be able to process transactions in real time. That means you can't place vendors in the middle of a field without a tent or power. It also means employing staff to ensure that if anything does go wrong with the tech, it gets fixed before attendees (and vendors) notice.

Depending on your cashless system, you may also have to supply kiosks where attendees can add money to their wristbands. Ideally, this happens before the event, but inevitably people forget or need to add more funds. You can avoid these complications by choosing a system that lets attendees link credit cards to their wristband, instead of pre-loading a certain amount of money. This eliminates the need to add more credit later. Attendees can activate payments in advance or from their phones at the event — no lines or expensive kiosks necessary.

3. If you don't do it right, you're risking your attendees' experience.

Many RFID payment systems require fans to pre-load their wristbands with money, and pay a refund processing fee to get their money back. It's worth thinking twice about how cashless payments are implemented at your event.

Our guiding principle: focus on making your attendees' experience better, and you'll be rewarded when they come back again and again. Avoid extreme fees. Instead, give users equal exchange rates, and don't keep unspent money — or charge a fee to return it.

A secure way to do this is with real-time authorization systems that link a credit card to each attendee's wristband or badge, using a PIN number for security. Every time a purchase is made, a new authorization is enacted. With this system, attendees will leave your event feeling delighted — not stressed about how their money was handled.



How it works: Closed-loop vs. open-loop cashless systems

The two most common cashless payment systems are closed-loop and open-loop.

Closed-loop means attendees can only make purchases with RFID, and generally turns their chip into a "debit card." This requires all attendees to load credit onto their wristband ("top up") , either online or on-site at a kiosk. Closed-loop systems are the only way to ensure all payments are made with RFID, and allows attendees to give themselves a spending budget. But closed-loop systems can introduce additional friction for attendees through lines at top-up kiosks, and refund fees if they want to get their unused credit back.

An open-loop system, on the other hand, allows attendees to pay with RFID, cash, or credit at any point of sale. This type of system most often turns the chip into a "credit card" by allowing attendees to link a credit card to their wristband or badge that is then authorized for every individual transaction. This system enables many benefits of cashless payments with minimal friction, but doesn't not allow attendees to "top up" their chips for a set amount.

Cashless payments can seriously step up your attendee's experience, and your revenue. But once you've chosen to take the leap, you need to make sure you've thought through the attendee experience from start to finish. Your fans — and your bottom line — will thank you.

Creative ways to take RFID to the next level on-site

Not looking to go cashless, but still want to explore more advanced ways to activate RFID on-site? There's no limit to how creative you can get with RFID. Here are a few ideas to get inspired:

Social media spotlights:

RFID can do a lot more than scan-to-post social media integrations. Think about photo booths: you can sync the system so that pictures post directly to attendees' Instagrams, or get sent right to their email.

Or, think even bigger: At Tomorrowland, a music festival in Belgium, RFID wristbands had heart-shaped buttons. If two strangers met at the festival and wanted to stay in touch later, all they had to do was press the buttons in unison. At the end of the day, they were able to connect on social media with everyone they met.

Sponsorship activations:

Often, sponsors are stuck asking attendees to manually type their information into an iPad — or fill out a paper form — to contact them later. And let's be honest — many attendees won't spend the time or stand in line to do so.

Attendees are more willing to participate and share their info when it's fun and easy. Consider having a sponsor host a raffle that you enter by checking in, or suggest they have a poll where attendees can vote for their favorite artist, panelist, or food booth by scanning their wristband or badge.

There are ways you can use RFID to streamline your operations with sponsors as well. Instead of spending hours pulling together post-event reports for sponsors that are based on estimates, you can use RFID to quickly calculate their traffic.

That also makes it easier than ever to convince them (and new sponsors) to come back next year. With all the extra data you're collecting on attendees, you can give sponsors advanced insights into the people at your event. For example, you could prove that the average sponsor at your event engages more than 100 attendees each hour. What sponsor could resist?

5. How can you choose the best RFID provider for your event?

Now you've had your crash course on how RFID can take your event to the next level. But not all RFID solutions are created equal. Events have shipped faulty wristbands, dealt with customer service fiascos, and seen ingress halt — all because of an RFID provider that wasn't up to the task.

When you're evaluating providers for your event, here are four questions you need to ask to avoid problems down the road:

1. Is there a single point of failure that could bring down the entire system?

One of the biggest risks of implementing RFID is that the technology itself could fail. When this happens, either poor network or power connectivity is usually to blame.

To address connectivity concerns, find out how your RFID provider handles connectivity loss — both to the outside world and across the event site. Choose an RFID solution that will continue to operate regardless of power or internet, so each attendee's wristband responds securely and accurately.

If your provider can't put devices in "offline" mode without a manual process, your staff might get overwhelmed during a failure. To create a seamless attendee experience, switching modes should be automatic and shouldn't increase ticket validation time.

Finally, how many layers of redundancy will your provider use to keep your wristbands working? Many providers work offline to some degree, but that won't help you if your portals and scanners can't access the single on-site server where the data is stored. The bottom line is that your RFID solution should properly manage access even if the local network, internet, or power goes down.

2. How do you handle fulfillment, in advance and on-site?

One of the most common problems related to RFID is fulfillment. Shipping wristbands to attendees is a massive undertaking, and can have serious customer service implications should anything go wrong. Once your first fan gets their wristband and posts about it online, other fans will want to know when theirs will arrive.

To reduce the drain on your customer service resources, make sure your RFID fulfillment solution gives you backend access to track the real-time status of each order.

That way, when a customer asks about their badge or wristband, you can tell them exactly when they can expect it to arrive.

An even better solution is to choose an RFID provider that allows attendees to track their own wristband order. Ask how fans can check the status of their wristband or report it missing. If the provider only routes fans through your customer service team, be prepared for a surge in call volume.

Next, ask about on-site fulfillment for attendees who purchase after the fulfillment date. How many steps will it take for fans to get their wristband on-site at the box office? This process should be as quick and easy as possible to save your staff time — and your fans a serious headache. With thousands of transactions, even a few extra steps can create long lines and a need for more staff.

3. Who is your chip provider, and what are their quality standards?

RFID providers can work with a variety of chip manufacturers. Don't let them shortchange your festival — or your attendees may pay the price.

RFID chips vary in quality. Even chips of similar specs can have drastically different read ranges and defect rates. Make sure you only buy chips from approved vendors that are recommended by your RFID provider. The last thing you want is fans showing up with wristbands that don't work. Equally important is to use chips that are properly encrypted so that no one can copy them.

Oh, and if your chips seem suspiciously cheap, there may be a reason. Knock-off RFID chips have infiltrated some RFID suppliers' stock. To ensure your provider uses quality inventory, make sure they use tested, officially licensed chips.

4. How long does it take to install and strike entry gates?

Some RFID solutions need two days to install gates and portals — and even longer if portals are being shipped in slow container trucks. But when weather isn't under your control, or the tent vendor is running late, you can't risk a delay on setup.

Choose an RFID solution that can be installed in hours, with handheld scanners you can distribute as needed. Not only will it prevent delays before the festival, it will allow flexibility during entry to add or subtract lanes as needed.

After the event, striking portals should be equally speedy. This will streamline logistics, especially in the case of an emergency exit.

6. How to get started

Now you're armed with the knowledge and questions you need to decide if RFID is the right fit for your event. What are you waiting for?

> "If you're thinking about using RFID, do it. Particularly with a partner like Eventbrite. Everything that we wanted, we got. Logistically, internally, and from an outside fan perception. It makes you look more professional, and work more professionally and efficiently. It just improves every aspect of your festival exponentially."
>
> — Jeffrey Lesan, CMO, SnowGlobe

Are you ready to evaluate RFID solutions for your event?

Check out Eventbrite's RFID solution or call us at 1800 820 172 to talk about using RFID at your event.



Eventbrite

Eventbrite is the world's largest self-service ticketing and registration platform, providing a seamless solution for event organizers to efficiently set up, promote, and manage their events. Eventbrite has powered over 200M ticket sales, connecting organizers with millions of attendees in more than 180 countries worldwide.

To find out how you can innovate with Eventbrite and grow your event, go to visit www.eventbrite.com.au/l/rfid-entry-management/, or give us a call at 1800 820 172.