

# The Ultimate Guide to RFID Integration

Your **5 Step Plan** to Create, Implement, and  
Deploy the RFID System of Your Park's Dreams



# What's the Buzz About RFID?

Chances are you've noticed how RFID (Radio Frequency Identification) technology is completely reshaping the way amusement and waterparks operate. It all began in 2005 at PDC's first SmartBand® RFID wristband system deployment at Hyland Hills Water World in Denver, CO. Soon after, SmartBand® was put to the test by the first of 19 Great Wolf Properties in Poconos, PA. Cashless payments, resort access control, and keyless room entry means Great Wolf guests no longer have to worry about keys, wallets, or cash. Everything is on the wrist— you can't get more convenient than that!

PDC's Smart® RFID wristband systems proved to be so successful that even Disney jumped at the chance to make their guests' experiences more interactive and meaningful with the launch of the MagicBand RFID wristband system in 2013. Today, leading amusement parks, waterparks, resorts, and music festivals around the world are using the technology with overwhelming success attributed to two important factors:



1. Parks profit through increased purchases, enhanced efficiencies, and guest loyalty



2. Guests love the technology for its convenience and security features

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# How Does RFID Work?

An RFID tag is comprised of two parts – an antenna for transmitting and receiving signals, and an RFID chip which stores the tag's ID and other information. Unlike a magnetic stripe or barcode, RFID allows for passive data transfer without the need for physical contact or line-of-sight reading. RFID is used in hundreds of applications worldwide and comes in various forms: Low Frequency (LF), High Frequency (HF), and Ultra High Frequency (UHF)

HF tags at 13.56 MHz are most commonly used in the amusement and waterpark industries with a read/write range of just a few inches, high storage capacities, and fast data writing. These advanced capabilities make RFID extremely quick and accurate, requiring little to no effort on the part of staff or guests to use effectively.

## **Low Frequency (LF)**

125-134 kHz

### **Common uses:**

Animal Tracking, Car Key fobs, and Access Control

- Very short read/write range of a few centimeters
- Limited quantity of memory storage capacities
- Low data transmission rate (reads very few tags at once)

## **High Frequency (HF)**

13.56 MHz

### **Common uses:**

Personal Identification, Access control, and Cashless Payments

- Short read/write range of just a few inches
- Large memory storage capacities
- Medium data transmission rates (reads a few tags at once)

## **Ultra High Frequency (UHF)**

433 MHz & 856-960 MHz

### **Common uses:**

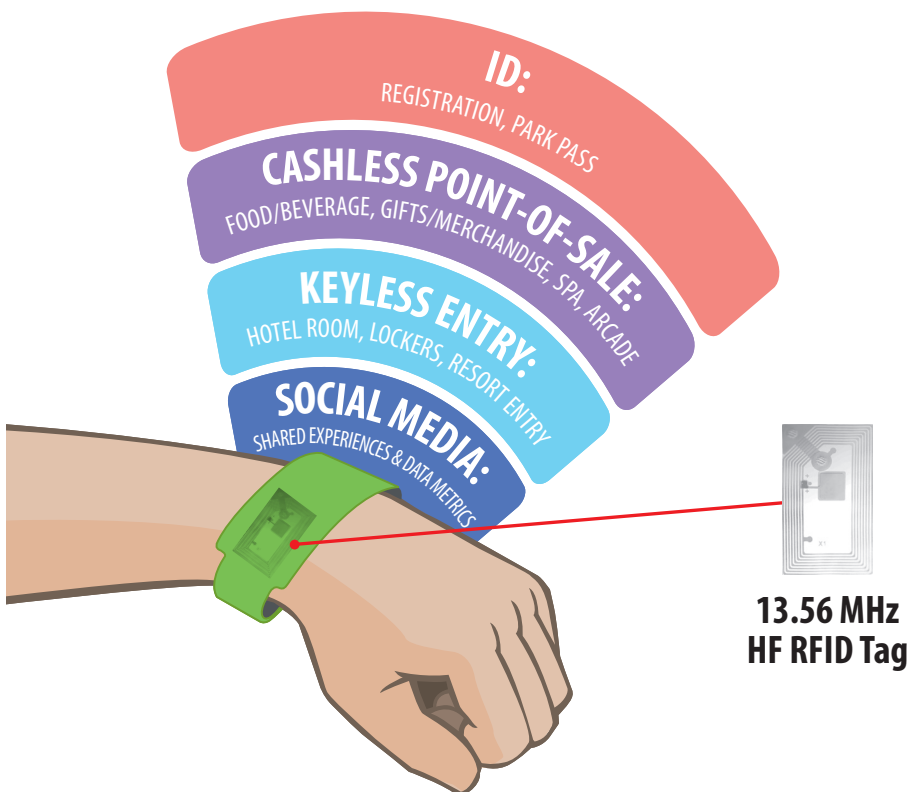
Conference Tracking, Marathon Timing, and Manufacturing

- Very long read/write range up to 70 feet or more
- Large memory storage capacities
- High data transmission rates (reads multiple tags at once)



# What are PDC Smart<sup>®</sup> Wristbands?

PDC Smart<sup>®</sup> wristbands contain a securely sealed waterproof RFID tag, which is programmed with a unique alpha-numeric code. When scanned by an RFID reader, a low-power radio wave activates the chip to securely collect and transfer data. PDC Smart<sup>®</sup> wristbands replace traditional forms of identification and access credentials including keys, badges, and door cards that can de-magnetize, or are not waterproof. From cashless point-of sale, to keyless entry, and social media integration, PDC Smart<sup>®</sup> Wristbands drive any variety of guest-convenience applications with a simple wave of the wristband.



# Your 5 Step Plan

## 1 STEP

### Identify the Right RFID Applications to Support Your Park's Goals

*RFID systems are not one-size-fits-all. Start with your key objectives in mind. Do you want to provide faster access to your park? Do you want to reduce transaction times so guests spend less time waiting in line and more time enjoying your park? Do you want to enable guests to make impulse purchases without their wallet? Do you want to provide self-service capabilities? Select the right applications that support your parks goals to realize substantial ROI.*



#### Cashless Point-of-Sale

- Decrease retail, food, and rental transaction times
- Reduce cash theft and shrinkage
- Increase average per cap spending



#### Season Pass & Customer Loyalty Programs

- Increase repeat customers and revenue
- Provide customer loyalty incentives and rewards
- Gather real-time data from customers and purchasing channels



## Entrance Turnstiles

- Provide faster access to the park
- Track & monitor real-time guest access data
- Reduce labor costs



## Keyless Doors & Lockers

- Increase security & guest convenience
- Eliminate lost keys and access cards
- Reduce locker/door lock maintenance requirements



## PDC Smart® Wristband Kiosk

- Provide guest self-service capabilities
- Reduce the need for guest service manual labor
- Decrease transaction times



## Social Media Integration & Data Metrics

- Maximize your social reach and advertising dollar
- Generate extra revenue through sponsorships
- Gather real-time data on your guests and demographic information

STEP

# 2

## Select Your RFID Partner

### Do They Have Industry Experience?

The key to success with any emerging technology is to partner with a company that has been there before and is a leader in consulting, project management, and RFID consumables. Do your research. Who are their best clients? Can they provide industry referrals? What guarantees do they offer? A partner with a proven track record brings industry knowledge and a solid partner network that will help you plan, integrate, and support the custom RFID system that fits your needs.

### Do They Offer On-Going Services & Support?

Implementing any RFID application at your park is a long-term strategy, so consider this as a true partnership and not a one-off supplier transaction. Your RFID partner should be able to provide staff training, on going technical services, support, and future development opportunities to ensure an efficient and functional RFID solution.



Implementing RFID technology will require an investment in time and money. However, the upside of a proper implementation is substantial and greatly outweighs the investment:



STEP

3

## Define Your Budget & Timeline

### You Don't Need a Large Budget

You don't have to have a large budget to take advantage of the benefits RFID has to offer. Modern point-of-sale systems can be easily integrated with an RFID reader with minimal investment. There are plenty of low-cost options to incorporate RFID with your park fixtures such as lockers, doors, and turnstiles. If you're currently planning or building, now's the perfect time to source RFID compatible equipment for the applications on your list. The growing popularity of RFID means there are a multitude of equipment options to fit your needs and budget.

### Integrate at Any Pace

The flexibility of RFID allows you to integrate as many applications as you like at once, or opt for a staged roll-out, where selected applications are deployed each season. Staged roll-outs can be completed over a few seasons if necessary—whatever is most convenient for your park.



# STEP 4

## Select the Right RFID Credentials



RFID credentials come in all shapes and sizes. Single-use wristbands with adhesive, plastic snap, or sliding lock closures are non-transferable for maximum security. Rewearable wristbands made of silicone or fabric material are long lasting and durable for long-term use. Cards, badges, and key fobs are the perfect complement to your RFID wristband applications.



## Staff Credentials

RFID cards and badges provide seamless integration for employee access control, attendance, and timekeeping. Using a single RFID credential to power these functions simplifies employee management through automated reports and unique access control assignments, including different levels and hours of access per employee.

## Single & Multi-Day Guest Credentials

Thousands of guests will pass through your park's entrance on a daily basis. The most secure RFID credential is any selection of non-transferrable PDC Smart® wristbands. Made from waterproof, non-stretch plastic with a securely sealed RFID tag, these wristbands can withstand up to two weeks of wear. You can even use a color-code system to help staff visually identify park VIP's, cabana renters, guests with special needs, etc. Customize your wristbands with your logo to promote your brand and website.



## Season Pass Credentials

Keep season pass holders coming back by adding unmatched value while creating unforgettable experiences. Issuing re-wearable SmartBand® RFID wristbands is a safe, secure solution that allows season pass holders to carry account balances between visits, accumulate loyalty points, and redeem instant coupons—all while integrating with your park's selected RFID applications.



## STEP

# 5

## Create a Roll-out Plan

*Creating a robust roll-out plan, driven by senior management, is critical to the success of your RFID program. Here are a few steps to consider when it's time to launch.*



## Train Your Team

Make sure every employee is adequately trained on how your park's new RFID program works. All park employees should fully understand your park's applications to ensure guest transactions are a seamless experience. Your RFID partner should be able to provide staff training before program roll-out.



## Create Buzz

Build a communication and marketing plan to promote your park's RFID program. You can use email, your website, social media, direct mail, press releases, and local news outlets to let everyone know what's new and how they will benefit from your park's new RFID applications. Your integrated marketing communication strategy should generate new interest in your park and help prepare your guests for a new park experience.



## On-site Education

Now's the time to create prominent park signage and educational brochures to help your guests get the most out of your new RFID program. Provide a map to let them know where they can take advantage of cashless purchases and lockers rentals, or how to use the PDC Smart® Wristband Kiosk to re-load funds quickly and easily to their wristband.





# Why Partner with pdc<sup>®</sup>

*Experience & Service You Can Trust*

As the innovator of the RFID wristband system, with over two decades innovating and deploying PDC Smart<sup>®</sup> RFID systems worldwide, PDC has earned its reputation as the leader in RFID wristband solutions. Our dedicated and experienced RFID Solutions team is available to provide any range of services you need to get your RFID program up and running—from consulting and planning to implementation, staff training, and on-going support.

Over  
**37 MILLION**

RFID Wristbands &  
Credentials Sold!

Over  
**400**

Customers Across  
the Globe.

*"Switching to RFID was easy with PDC's team of RFID experts. They helped us manage the project from start to finish and ensured us of a quality start to the program. Our guests truly appreciate the efficiencies and conveniences offered by the variety of RFID products here at the park."*

Bob Owens, Park Manager  
Hyland Hills Water World, Denver, CO

*As Seen at These Popular Attractions:*





# Integrated Services Offering

*We'll Take Your Vision from Concept To Reality*



1

## Needs Analysis

How can RFID enhance the guest experience and add to your profits? Which applications make the largest positive impact on your customers and staff? PDC will ask the right questions and help shape the solution that best meets your unique needs.

2

## Site Assessment

It's impossible to recommend a sound solution without experiencing your vision first-hand. PDC's experienced team will evaluate your site and operation from top to bottom to define your unique use models and determine the correct mix of hardware and application features.

3

## Cost Evaluation

Throughout the development process, PDC's focus is to maximize performance and profits by selecting system components that economically and technologically meet the needs of your application.





4

## Solutions Sourcing

Through many years of experience, PDC has built a diverse, reliable partner network with the nation's leading RFID application, equipment, and hardware and software suppliers. These relationships allow us to develop and properly implement your customized solution.

5

## System Installation

Successful integration of any RFID application requires effective project management. PDC's skilled project management team guides the installation from development to execution. Project and vendor management, on-site installation supervision, staff training, and on-going services and support ensure an efficient and functional RFID solution.

6

## Future Development

PDC serves your needs today and develops the RFID applications and services for tomorrow. Let us explore your visions and determine the value proposition for a variety of new RFID enhanced applications, such as interactive displays or rental programs.

# Want to Know More?

If you have any additional questions or want to speak with a member of the PDC RFID Solutions team about the possibilities of RFID at your park, contact us today:



**rfid@pdcsolutions.com**



**866.255.6358**

North America & Latin America  
U.S. Headquarters  
25124 Springfield Court, Suite 200  
Valencia, CA 91355  
Tel: 866.255.6358  
Tel: 661.257.0233 ext. 1556  
Fax: 818.686.9336  
Email: rfid@pdcsolutions.com

Asia Pacific  
Tel: +1.866.255.6358  
Fax: +1.818.686.9317  
Email: asia@pdcsolutions.com

Europe, Middle East & Africa  
European Headquarters  
Rue de l'Industrie, 17  
1400 Nivelles, Belgium  
Tel: +32 67 89 56 56  
Fax: +32 67 21 77 70  
Email: info@pdcsolutions.eu  
Web: pdcsolutions.eu

