

# **IAAPA** Attractions **EXPO**

*RFID Technology for Amusement  
Parks: Increase Revenue Using  
Innovative Technology*

Tuesday, November 14, 2006  
10:00 AM to 11:15 AM  
Room # B408



# RFID for Amusement Parks

*Increase Revenue Using Innovative Technology*

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## Radio Frequency IDentification

- RFID uses an ultra thin electronic circuit called an inlet sealed in an economical wristband, label, card, or other credential.
- RFID allows instant and accurate capture and verification of data.
- RFID provides an “over-the-air” non line-of-sight interface, which can be read through and around clothing, water, and non-metallic surfaces.
- RFID has read/write technology for data transfer to and from host systems and data storage.
- RFID has larger memory capacities, wider reading ranges, and faster processing vs. bar codes.

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## Frequency Comparison

### Low Frequency (125Khz)

- Shorter range
- Typically requires wire coil tag
- Excellent read quality
- Passive

Animal Identification, Mobile Speed Pass



### High Frequency (13.56Mhz)

- Worldwide regulatory availability
- Read/Write capability, high speed data transfer
- Moderate read range
- Low cost, flexible tags
- Performs well around liquids (human body)
- Passive

RFID Wristband, Patron ID, Cashless Payment, Entry Access, Keyless Entry

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## Frequency Comparison

### UHF (915Mhz)

- Longer range
- Limited worldwide acceptance
- Interference issues, multi-pathing
- Does not perform well around liquids
- Local Positioning (active)

EPC (Electronic Product Code)

### Ultra High Frequency 2.45Ghz

- Longer range
- Limited worldwide acceptance
- Line of sight dependent
- Potential interference with existing 2.45Ghz LANs
- Requires battery power
- Local Positioning

Toll Pass, Container Tracking



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## Benefits

- Increase per cap spending
- Reduce shrinkage (cash drawer discrepancies)
- Allow for breakage (non-refunded cash left on wristband)
- Automate processes and streamline operations
- Enhance guest convenience and added-services

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## RFID Applications

- Cashless point-of-sale (POS)
- Keyless Entry (Doors, Lockers)
- Admissions and Ticketing
- Access Control
- Security, Doors and Lockers
- Guest, Employee ID and Tracking
- Age verification
- Line Queue Control
- Safety

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## CASHLESS POS

- **Cashless RFID has been around for 10 years**
  - Mobile Speedpass – 1996
  - AMEX/Visa/MasterCard – 2002
- **Major Drivers for Cashless Transactions:**
  - 50% surveyed - convenience was a factor for cashless
  - 45 % surveyed - said speed was also a factor
- **Cashless RFID reduces line Queue**
  - 12.5 seconds for RFID transaction
  - 26.7 seconds for mag stripe transaction
  - 33 seconds for cash transaction

*Faster transaction times reduce line queue and increase patron spending*

Source: Jupiter Research  
Source: December 05 Briefing Federal Reserve Bank Kansas City

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## CASHLESS POS

### POS Interface

- Back End and/or money on band
- Easier than using cash
- 3<sup>rd</sup> Party Vendors
  - Micros
  - Springer Miller
  - Info Genesis
  - Microsoft Retail systems
  - Omni Ticketing

**Cashless RFID increases spending**  
• **20-33% lift in patron spending**

2004 Smart Care Alliance: Contactless payments: Delivering consumer and Merchant benefits  
2005 AMEX discussion on results of pilot studies for RFID contactless product.

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## Access Control

- **Positive Guest ID**
- **Patron Experience Enhanced**
- **Anti “pass back” feature**



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## Keyless Entry

- Convenience
- Doubles as your “electronic wallet”
- NEVER LOOSE YOUR ROOM KEY



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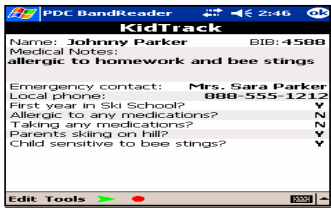
## Linking Solutions

### Family Link

- Allows linking of family members with emergency info
- Scan band & retrieve contact information

### Towel Link

- Ability to link Patron to number of towels checked out
- Automatic return station – Non Returned towels can be charged to patron



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## Lockers



- RFID locks
- Revenue generator
- Ease of use and convenient for guests
- Allows day guests storage option

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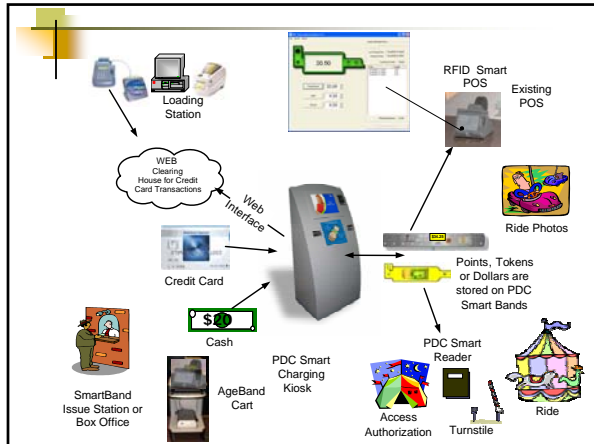
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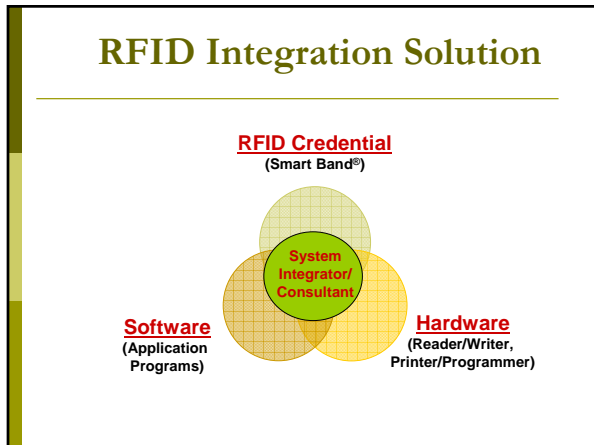
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## What is a SMART Wristband?



- Inlet is sealed in an economical, non-transferable wristband.
- Unlike barcode, RFID provides an **"over-the-air" interface**. Line-of-Sight communication is not necessary (*Read/Write through and around bedding, clothing, and the human body*).
- **Read/Write** capability allows for data transfer to and from host systems and data storage (*i.e. Bloodtype, Allergic Reaction Warning, Instructions/DNR, Surgery Site*).
- Part of a system that connects the caregiver, and the patient and the medication to the hospital system

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## Smart Band Advantages

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| <ul style="list-style-type: none"> <li>□ <b>Convenience</b> <ul style="list-style-type: none"> <li>■ No carrying other credentials in the park</li> </ul> </li> <li>□ <b>Increase Per Cap Spending</b> <ul style="list-style-type: none"> <li>■ Spontaneous Purchases</li> <li>■ Enables All To Spend</li> </ul> </li> <li>□ <b>Improve Operational Efficiencies</b> <ul style="list-style-type: none"> <li>■ Reduces shrinkage</li> <li>■ Improves inventory control</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>□ <b>Breakage</b> <ul style="list-style-type: none"> <li>■ Money Left On Band</li> <li>■ Gift Card Industry</li> </ul> </li> <li>□ <b>Faster Throughput</b></li> <li>□ <b>Increase Revenue</b></li> <li>□ <b>Happier Patrons</b> <ul style="list-style-type: none"> <li>■ Improved Customer Satisfaction</li> </ul> </li> </ul> |
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## PATRON EXPERIENCE....CONVENIENCE.. CONVENIENCE.. CONVENIENCE...

"...The wristband feature is absolute genius. Knowing that you will never lock yourself out of your room or have to carry around your wallet is great. I made sure not to allow my 11 year old son have room charge capability on his wristband. I didn't want to have a heart attack upon check-out..."

"...Loved the idea that your room key was on your wrist band and that you could charge anything to your room with them too..."

"...The hotel provides you with wristbands when you arrive. These are great. You don't need to carry a key and there are kiosks located in the hotel to load your band with money so we had no need to carry money anywhere. Money on the bands can be loaded to use in the arcade or the stores. It was a fantastic option..."

"...Wristbands. Live them, love them, use them. They are your keys to your room, your credit card at the food stands, even the keys to your locker. You never have to carry anything with you, except for a waterproof camera which I would highly recommend..."

"...each guest is given a wrist band - wrist bands contain a microchip, which can be programmed to open your hotel room, which means you don't have to worry about carrying around your hotel key. As well, the wrist bands are used to open and lock the lockers as well. Also, you can use them to make certain purchases..."

Source: Tripadvisor.com Web Site

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## Existing RFID Implementations

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## Hyland Hills Water World

Federal Heights, Colorado

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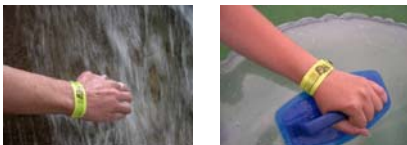
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## Splash Cash

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Collaborated to:

- Increase in-park spending
- Develop loyalty program
- Reduce "cash" transactions



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## GREAT WOLF LODGE



Poconos, PA    Niagara Falls, ON    Mason, OH

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## Cashless POS

- ❑ Electronic Wallet
- ❑ No loose or lost cash
- ❑ Convenient and fast transactions
- ❑ All age-compatible
- ❑ Easy to use



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## Cashless POS Arcade Token Dispenser



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## Keyless Entry

- No keys
- Quick, convenient access for entire family



Other Applications:  
Business & Internet Services

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## Smart Kiosks

- ATM-like Kiosk
- Touch screen with easy instructions
- Load money on Band using cash, credit, or debit



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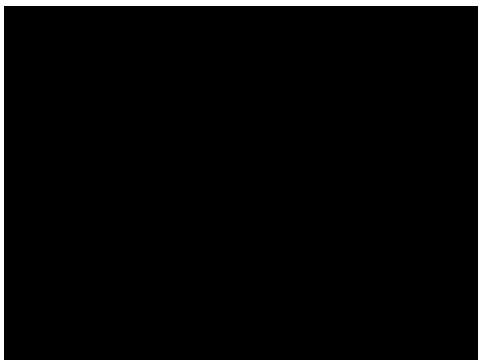
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**THANK YOU**

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