

Guests at Fort Rapids Indoor Waterpark and Great Wolf Lodge can use RFID tags embedded in wristbands to do such things as pay for goods and services and unlock hotel rooms.

By Claire Swedberg

Dec. 14, 2006—Two new Ohio water parks—[Fort Rapids Indoor Waterpark](#), located in Columbus, and [Great Wolf Lodge](#), in Mason—recently installed RFID systems allowing guests to use RFID tags embedded in wristbands for such tasks as paying for services and unlocking their hotel rooms.

Few already-established water parks are installing RFID systems to replace existing access-control systems utilizing keys or bar-code technology. However, the new parks have made RFID the access-control and contactless payment technology of choice.



Kim Schaefer, Great Wolf

"Newer parks are going for RFID as the Cadillac option," says Ken Peterson, director of food marketing for ticket and wristband provider [National Ticket Co.](#) "It gives them the ability to locate a person, unlock doors and provide contactless payments, which justifies the dollars spent." One problem faced by water parks is that patrons wear bathing suits the whole time they're there—whether in or out of water—making it inconvenient to carry a wallet or cash. With RFID contactless payment systems, however, patrons don't need a wallet or cash to spend money.

Great Wolf Lodge issues bracelets with writeable RFID chips that can be instructed to admit guests into their rooms, open or close lockers for storing personal items, pay for food and other purchases, and buy game tokens, all without worrying about the charges until they check out.

Each guest receives a Smart Band RFID wristband made by [Precision Dynamics Corp.](#) (PDC), a San Fernando, Calif., provider of cashless payment and identification systems. The wristband contains an embedded [Texas Instruments](#) 13.56 MHz RFID chip compliant with ISO 15693, the unique ID of which is connected to a folio (itemized bill) for that guest's family.

Instructions stored on the tag enable it to open a specific room door, or to allow a specific purchase amount to be applied to a guest's folio. RFID readers stationed at points of sale, vending machines or gaming areas send that purchase data to the hotel's database for billing at the end of the family's stay. [Micros System](#) point-of-sale stations installed throughout the resort enable guests to make cashless payments with the RFID wristbands.

To enter a guest room, a patron holds the wristband within a few centimeters of an RFID interrogator built into the door lock. When purchasing souvenirs or food, or when playing an arcade game, a person uses the wristband the same way, holding it within centimeters of an RFID-enabled payment terminal.

Two Ohio Water Parks Become RFID-Enabled

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Great Wolf has already added RFID technology to two other new water parks as well: one in Scot Run, Pa., and another in Niagara Falls, Ontario (see [Great Wolf Water Park Launches RFID](#)). Additionally, it is installing RFID systems in at least two more parks under construction, says Kim Schaefer, Great Wolf's corporate COO.

Fort Rapids Indoor Waterpark, owned by [InterContinental Hotels Group's](#) Holiday Inn division, uses bracelets embedded with passive 13.56 MHz RFID tags compliant with the ISO 14443A standard. In contrast with Great Wolf's RFID system, Fort Rapids' does not write data to the tag. Instead, RFID interrogators capture the tag's ID number and forward it to the hotel's [Microsoft BizTalk Server 2004](#). At that point, the database can tie the RFID identifier with a folio that includes all members of a family, storing such details as how much money that family spends. Fort Rapids uses [ViVOtech](#) readers; RFID bracelets and real-time location service hardware, software and integration from [Guest Technologies](#); and a POS contactless payment solution manufactured by [InfoGenesis](#).

The reusable bracelet incorporates a battery-powered 303 MHz RFID tag from [RF Code](#), a Mesa, Ariz., provider of RFID systems. Every 10 seconds or so, the tags transmit their ID numbers to antennas deployed around the water park. Parents can then use an LCD screen at the front of the hotel, or a touch screen in the park itself, to locate their children. When a patron holds a bracelet several centimeters from the interrogator, the screen displays where other members of that person's party are located, says Greg Giralдин, director of corporate accounts at Guest Technologies.

For contactless payment, the return on investment is in the added convenience that leads to greater spending. "The value is in the cashless way of payments. Kids don't have to carry cash—it allows people to spend more money," says Matt Walton, [InfoGenesis](#)' marketing manager. "We love the convenience for our guests," says Great Wolf's Schaefer, "and the guests love the 'cool factor.' People find it unique."

No specific ROI statistics are available, Schaefer says, partly because most RFID systems have been installed in new facilities. "Intuitively, we know there's more spending," she says. Great Wolf is looking at child-tracking systems, though she adds that the resort is a family establishment designed to encourage families to spend vacation time together. For that reason, she feels, having a child-tracking system might conflict with that goal. "It's counterintuitive to put too many tracking devices at a family establishment and then wonder why a family isn't together," she says.

Another park that has installed RFID systems is [Dolly's Splash Country](#), located in Pigeon Forge, Tenn., which installed the SafeTzone Child Locating System. This system uses a wristband with an active transponder that sends a signal at 303 MHz to one of 22 readers located around the park ([RFID Makes a Splash at Water Park](#)). RF Code provided the active transponders and interrogators. The wristband also contains a passive 134 kHz or 13.56 MHz tag from TI that enables patrons to make purchases.