

The Future of Retail Customer Loyalty

RFID Enables Breakthrough Shopping Experiences

Author
Rachael McBrearty

June 2011



Cisco Internet Business Solutions Group (IBSG)

The Future of Retail Customer Loyalty

RFID Enables Breakthrough Shopping Experiences

It's getting tougher to cultivate customer loyalty. Traditional programs have driven loyalty by rewarding customers with discounts: some retailers allow customers to use loyalty cards only for taking advantage of sale prices, while others have enabled accumulation and redemption of points that carry dollar value. In these programs, discounts and sales are usually the same across the entire customer population, rather than targeting specific customers based on spending habits or preferences.

Tomorrow's loyalty programs need to offer more than general discounts; they need to create a personalized shopping experience—beyond rewards and points—where loyalty once again means advocacy and commitment. Loyalty programs need to maximize relevance by recognizing individual customers, offering special treatment, and delivering surprises to keep people coming back.

Changing Landscape

There are a couple of reasons for the altered loyalty landscape. New business models like those offered by Bizrate, Groupon, Nextag, and ShopLocal provide mechanisms for customers to enjoy special offers and discounts without having to earn them through a loyalty program. Additionally, the commoditization of loyalty programs has diminished retailers' ability to create a competitive advantage. These factors are driving the need to strengthen the emotional connection to a brand through a differentiated experience.

The convergence of social media and mobility is fueling loyalty platforms that reward customers through game-like applications such as Loopt, foursquare, Facebook Places, and shopkick. For example, Verizon Wireless offers half-price discounts on all accessories on customers' third check-in, and Burger King is offering a free drink with a meal for checking in three times. These programs are not necessarily limited to visits to a retailer's property: Universal Music offers a free song to those who check into any bar along with two friends.

While these programs provide fun experiences that drive customer traffic, there are two problems with mobile social networking tools: (1) they rely on customers to check-in, whether manually or by launching a GPS app; and (2) they are just another way of delivering the traditional loyalty program value proposition of discounts.

Delivering New Experiences

A next-generation experience needs to recognize, reward, interact with, and treat customers in unique ways to maintain their loyalty. This requires building a program around recognition, rethinking each touchpoint and how to use the wealth of insights learned about customers over the years. Used properly, this data can help create competitive differentiation, enabling faster service, better advice, and consistent, personalized experiences across all touchpoints—and resulting in a competitive advantage for the retailer.

As increasing numbers of customers move to online purchases, retailers need to figure out how to offer a rich in-store experience that cannot be attained online. A retailer may rank high in terms of brand recognition, but become commoditized in terms of product offerings. It is important that brands “curate” the experiences of their customers based on their specific lifestyle or usage needs. There is overwhelming choice and complexity in today’s world, and customers need help making decisions. In her book *The Art of Choosing*, Sheena Iyengar writes that although we prefer more information, it can, in fact, be debilitating. In a 2008 study, she found that when people were given information about 50 rather than 10 options in an online store, they choose lower-quality options.¹

Retailers should begin by understanding their customers’ needs and identifying the value proposition they can provide. They can then select the technology that will enable delivery of that experience. Radio frequency identification (RFID) is an ideal technology for providing these new experiences, offering the ability to identify specific customers and match the right products and services to them. RFID allows retailers to recognize a customer as he or she walks into the store, triggering automatic actions such as the display of targeted suggestions and offers via interactive signage or a kiosk. RFID can also provide offers for products customers typically purchase, and enable surprise offers based on a customer’s loyalty level. In addition, RFID improves the customer experience by speeding up checkout, since customers no longer have to dig through a purse or wallet to locate their loyalty card or credit card.

RFID Versus Traditional Loyalty

Traditional features of loyalty programs include the following:

- Discounts at point of sale
- Special offers and rewards based on amount spent / points earned
- Time-based promotions (email)
- Easy refunds on purchases
- Notifications: drops in prices, new arrivals, recall alerts
- Low-price guarantees (automatically credit if price drops in seven days)

Additional, personalized capabilities provided by RFID include the following:

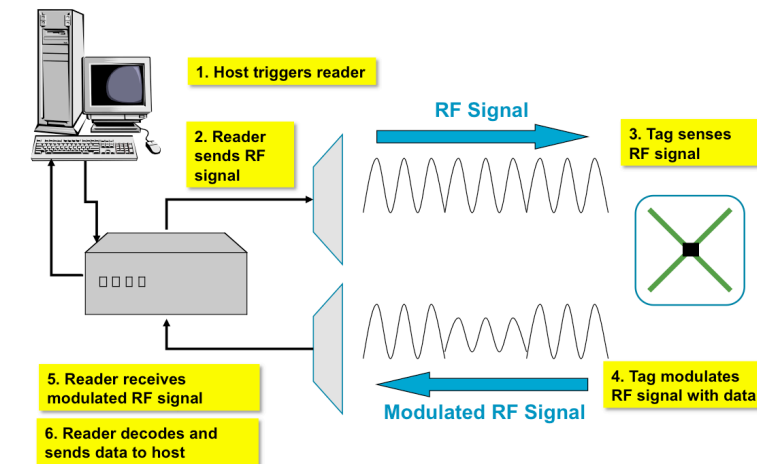
- Better service, with notification when a specific customer enters the store (sales associate alert)
- Real-time, personalized messages and offers at critical points of decision making (via digital signage, SMS to phone)
- Recommendation of product selections based on purchase history, clothing sizes, preferred styles, and more
- Access to shopping lists, or the ability to build wish lists
- Faster checkout
- In-store analytics of customer behavior

How RFID “Tags” Work

The RFID-enabled loyalty experience has a number of technical components that need to interact with point-of-sale (POS), in-store media, and CRM systems, including a server with customer data, and software that applies credits and generates alerts and offers.

RFID “tags” are applied to the customer profile and read by *readers/antennas* that capture the tag ID and pass it to the *software*. The software analyzes the customer profile and sends commands to the *Digital Media System*, *associate applications*, or POS to display the correct content or trigger the right interactions (see Figure 1).

Figure 1. The RFID-Enabled Loyalty Experience: How It All Works.



Source: Cisco IBSG Customer Experience, 2011

Issuing RFID “Tags”

The process for issuing an RFID loyalty card is not much different from joining traditional loyalty programs. When the customer joins, he or she is assigned an ID number associated with key demographic information. The customer is asked to accept the privacy policy and indicate whether he or she wants to be alerted for special offers and other important communications (either by phone, text message, email, or not at all).

In the case of an RFID identification tag, there is a separate step where the tag’s own unique ID needs to be associated with the customer profile. Additional information might be collected to drive content personalization. This can be done in the store, or the customer can do it online from a personal page on the company’s website. In the case where RFID tags are being added to an existing program, the cards will need to be associated with the existing profile, and the profile information can be populated based on purchase history.

Choice and Notice

Transparency is critical with RFID, primarily due to privacy advocates who are concerned about covert use of the technology. This issue can be avoided if retailers are clear about their policies, make their usage of RFID visible, and avoid saving store or customer information on the tag. Retailers should implement security practices to ensure that data

associated with electronic product codes (EPC) is collected, used, maintained, and stored appropriately.²

The fact of the matter is that mobile phone companies are tracking us constantly. At any given instant, a cell company has to know where you are; it is constantly registering with a tower that has the strongest signal.³

It's important to give your customers a choice to opt-in for an RFID-enabled tag. The opt-in message should be clear, and customers should be able to join the loyalty program with a non-RFID version of the card. The privacy policy needs to be expanded to explain regulations pertaining to RFID. It is important that while striving to deliver a great experience, you protect the rights and privacy of customers. It is also critical to get customer permission for all areas in which you will use their personal information to personalize the experience. If you are planning on using the card to facilitate payment, customers must authorize use of their credit card.

Getting Started

There are many considerations when selecting RFID technology. Once you have thought about the desired experience, it is best to hire experts who have hands-on experience. They can help match the best technology solution to your needs, helping you understand global standards, regulatory issues, and privacy concerns. Several key experience requirements will drive RFID solution selection (see Figure 2).

Figure 2. Experience Requirements Illustration.

Activity	HF	UHF	Active
Payment / loyalty at point of sale	●	○	○
Automatically recognize at signage / entry (~100% accuracy)			●
Automatically recognize at signage / entry (~80% accuracy)		●	
Self-acknowledge at signage / entry	●		
Item-level tracking		●	
EAS item-level tracking		●	

Source: Cisco IBSG Customer Experience, 2011

Deciding on RFID “Tag” Technology

There are various tag options for RFID loyalty cards (see below), and RFID tags can be provided to customers in several form factors, including the traditional customer card, a key fob (like paying at a gas station), a charm, or a phone case. The tags can be printed as stickers and adhered to any surface, including that of an existing loyalty card. The technology decision should be based on the goals of the program or experience.

Option 1: Active RFID

An active RFID tag is probably the only RFID technology that can be reliably read without requiring the customer to swipe or present the card to a reader. If it is important for the

customer to be identified 100 percent of the time, then this solution is the most appropriate. With an active tag, the customer can walk through an entryway carrying the card or key fob and be identified automatically. In-store media is automatically customized as the customer passes by, and the POS system recognizes the customer as he or she approaches. Active RFID tags cost more than other solutions because they contain a battery.

Option 2: Long-Range UHF—10-30 Feet

More cost effective—though not as reliable for automatic reads as the active RFID tag—is the UHF tag. It can still be read from a distance and enables recognition of customers as they walk through a portal or enter a dressing room. Retailers looking to implement item-level tagging need to consider this option if they want to provide “hotspots” that read the combination of item tags and customer tags without requiring two different hardware technologies.

Option 3: Proximity or NFC—Close Range

HF or near field communication (NFC) technology makes the transaction more secure and PCI-compliant, and is the RFID technology embedded in most credit cards. The card must be held within 10 centimeters of the reader, making it more secure than other approaches because of the reduced risk of signal interception. This means the customer will have to present the card in order to display personalized videos, pictures, or text.

The program will be compatible with NFC mobile devices when they eventually become widespread. NFC phone owners may use the phone as an alternative to loyalty cards at hotspots and point of sale. To begin early testing of NFC phone capabilities, NFC stickers (battery-powered electronic devices) can be attached to the back of a handset. They can be read by antenna, or they can read tags attached to shelves. Customers can tap their sticker against the tag and press a button on the sticker. The unique tag ID is stored in the sticker.

Considerations for Integration with POS

With the exception of RFID-based NFC payment cards, RFID has not yet seen widespread adoption. There aren't any POS-specific devices on the market that support the reading of those tags. Therefore, a custom solution is required to retrofit a POS system. For UHF tags, an RFID reader and antenna must be installed at point of sale, and a process needs to be created to drive a small reader board to collect data, query a database, and pass credit card information to point of sale for processing. The antenna can be identified as associated with the point of sale and tuned down to limit the read range. Work with your POS vendor and RFID consultants to create a scalable solution.

The RFID customer checkout process could operate as follows:

1. RFID card is read by the system (may not need to be shown by customer)
2. Customer is presented with personalized information (cross-sell, up-sell, etc.) at the POS digital display
3. Items to be purchased are scanned; if credit card is not on file, customer needs to scan credit card
4. Customer confirms total and, if over a certain amount, customer signs
5. Receipt is printed or emailed to customer's account

PCI DDS Compliance

RFID cards can be associated with a customer profile that contains credit card information for quick checkout. Regardless of the technology being used, retailers must comply with PCI DDS⁴ to process major credit cards.

In order to be compliant, the RFID card cannot contain any personal information; this is analogous to receipts with no name or credit card information (in security terms, referred to as “obfuscation”). RFID provides greater security than magnetic stripe technology because the personal data is never exposed and remains in the back-end system, with only the encrypted ID number transmitted.

Integration with Digital Media Systems

RFID interrogators detect RFID ID numbers being transmitted by the RFID card. The interrogator sends that number to the Digital In-Store Media Player, where the cardholder’s profile can be analyzed and matched with the appropriate content. If the Digital Media Player has a touch screen, the software can enable customers to select offers of interest.

Figure 3. Technology Components Required To Support an RFID Loyalty Experience.

Customer “Card”	
▪ Customer card	▪ Active RFID tags, HF, or UHF
POS	
▪ Reader / antenna	▪ Ability to read tag at POS ▪ Ability to associate the tag with customer record
▪ Script to pass tag ID	▪ Ability to call up customer record to complete sale through POS system
▪ PCI compliance	▪ No data stored on card; third-party evaluation of solution
In-Store Media	
▪ Reader / antenna	▪ At portals or hotspots
▪ Digital signage / associate device	▪ Business logic to determine which content to display to customer
▪ RFID handheld	▪ Ability to scan customer card and access customer profile

Source: Cisco IBSG Customer Experience, May 2011

Here is how it could work:

1. Customer tag is read as he or she enters the store or approaches an interactive sign equipped with an RFID reader/antenna
2. The sign’s message transforms based on the loyalty card and/or item being read
3. Customers can interact and save offers that are presented
4. Customers can save items to an online closet or profile
5. Analytics can track items looked at and purchased/not purchased

Conclusion

Retailers should conduct limited trials of RFID cards to observe customer reactions and validate the economic case. Some of the benefits will be hidden and not easy to measure in the short term. Many of the benefits of RFID are discovered only during pilots, so it is best to test and learn with the objective, in this example, of delivering one-to-one real-time marketing. The benefits can be impactful: assuming that 70 percent of a store's revenues come from loyal customers, and that targeted offers and other content will cause 5 percent of them to buy more, the result will be a 3.5 percent conversion improvement. Additionally, the RFID infrastructure that helps create this targeted customer experience can also enable the retailer to improve inventory management by tagging goods to monitor out-of-stocks and increase cross-sell.

In addition, longer-term impacts of customer loyalty can be achieved by delivering personalized content and offers that make customers feel connected to the brand. These improvements, enabled by the RFID loyalty card, can keep customers engaged and coming back.

For more information, contact:

Rachael McBrearty
Global Creative Director
Cisco IBSG Customer Experience Practice
rmcbrear@cisco.com
+1 408 894 8932

Endnotes

1. <http://www.newsweek.com/2011/02/27/i-can-t-think.html>
2. See EPCglobal, <http://www.gs1.org/epcglobal>
3. <http://www.nytimes.com/2011/03/26/business/media/26privacy.html?ref=technology>
4. <https://www.pcisecuritystandards.org/documents/PCI%20SSC%20-%20Getting%20Started%20with%20PCI%20DSS.pdf>

More Information

Cisco Internet Business Solutions Group (IBSG), the company's global consultancy, helps CXOs from the world's largest public and private organizations solve critical business challenges. By connecting strategy, process, and technology, Cisco IBSG industry experts enable customers to turn visionary ideas into value.

For further information about IBSG, visit <http://www.cisco.com/go/ibsg>.



Americas Headquarters
Cisco Systems, Inc.
San Jose, CA

Asia Pacific Headquarters
Cisco Systems (USA) Pte. Ltd.
Singapore

Europe Headquarters
Cisco Systems International BV Amsterdam,
The Netherlands

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at www.cisco.com/go/offices.

 Cisco and the Cisco Logo are trademarks of Cisco Systems, Inc. and/or its affiliates in the U.S. and other countries. A listing of Cisco's trademarks can be found at www.cisco.com/go/trademarks. Third party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1005R)