

A First Data White Paper

Universal Commerce: Adapting to the Power of Smart Devices

Welcome to the age of Universal Commerce—commerce that is integrated, personalized, secure, open and smart.

The lines between in-store commerce, eCommerce and mobile commerce are blurring. Consumers expect a more integrated buying experience that is quick, consistent, secure and available wherever they happen to be, at any time and through any type of device.

In First Data's continuing series on Universal Commerce, this paper discusses how devices like PCs, smartphones, tablets, ATMs and smart terminals provide merchants and financial institutions with exciting new ways to engage their customers.

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Introduction

Consumers empowered by new online and mobile technology have been a driving force behind dramatic recent changes in banking and retail commerce. Their enthusiasm for making online purchases and using mobile technologies in pursuit of greater control, more immediate satisfaction and better value has altered the retail landscape. Consumers now routinely read product reviews and conduct price comparisons while standing in a store. They pay attention to what their friends say on social networks about the products they purchase and the places they visit. They actively seek offers from daily deal publishers. They manage their finances with online and mobile banking, and they regularly use alternative methods of payment.

Merchants and financial institutions recognize that customers seek an experience that fits their individual needs and is seamless across channels. This "Universal Commerce" experience integrates shopping, payments, marketing, loyalty and financial management. Increasingly, Universal Commerce represents a new consumer engagement strategy that merchants and financial institutions must pursue if they are to successfully capture the business of increasingly connected consumers.

One of the key enablers of a Universal Commerce experience is the "smart device." Smart devices are not just smartphones and tablets; they can also be smart point-of-sale devices, or even ATMs.

Consumers have been leading the way in using their smart devices to support their shopping needs. From the consumer perspective, smart devices bring together their personal, social and financial worlds. From a merchant or financial services standpoint, smart devices can help create a consistent experience for the consumer and facilitate purchases. It is important to recognize, though, that in the world of Universal Commerce, the payment transaction is only one small part of the total customer experience. As Mercator Advisory Group explains, this experience also includes "advertising, pre- and post-sale incentives, and other information-based relationship building between the consumer and the merchant."¹ To compete successfully, merchants and financial institutions must use smart devices to cultivate customer relationships while creating a consistent and appealing engagement experience.

Consider this simple example:

A woman offers to buy coffee for two of her friends. She already has the coffee merchant's mobile app installed on her smartphone—and as her friends order, she quickly checks the balance on her prepaid account. The cashier rings up the purchase and she holds out her phone, which displays the barcode for her account.

Fast Facts on Smartphones

- Smartphones have as much processing power as personal computers of a decade ago.²
- Today's wireless networks can provide smartphone users with bandwidth for data-intensive usage.
- According to recent Nielsen research, almost half (49.7 percent) of U.S. mobile subscribers owned smartphones in February 2012, up from 36 percent 12 months earlier. When consumers acquire a new mobile device, more than two-thirds choose a smartphone over a feature phone.³
- U.S. smartphone users will rise to 138 million in 2015, up 134 percent from 59 million in 2010, Javelin Strategy & Research predicted.⁴

The cashier scans the barcode and is notified that the customer has enough loyalty points for a free cup of coffee. He asks if she wants to apply the points to this purchase. The transaction is complete, and the woman has purchased three cups of coffee for the price of two.

This simple transaction involved two smart devices. The customer has a smartphone running the merchant's mobile app, which allows her to check her prepaid balance, move money into her prepaid account and easily track loyalty points. It also simplifies the transaction. To make payment, she just flashes her barcode.

The cashier also has a smart device—the point-of-sale terminal. This system automatically checks for loyalty points and alerts the cashier that this customer has earned a reward redemption. The process enables the cashier to offer better customer service while simultaneously streamlining the redemption process.

This scenario depicts a transaction that combines financial management, marketing, loyalty and payments into one seamless experience. It also illustrates the importance of smart devices in even the most basic Universal Commerce situation.

Clearly, smart devices are capable of empowering both consumers and the businesses that serve them. But what does that really mean for merchants, and how does it affect financial institutions?

Before answering these questions, it is important to understand the power and potential of smart devices. The coffee example shows smart devices in action, but the fact is that their capabilities are even more exciting and far-reaching than are shown in this example. So what exactly are smart devices?

Smart Devices Defined

Smart devices include smartphones, tablet computers, many point-of-sale terminals and even ATMs. So what exactly makes a smart device "smart?" The answer varies depending on whether it is used by a consumer, a merchant, or a financial institution. In general, though, all smart devices possess the ability to:

1. Process information using their own internal intelligence
2. Share information with other devices and systems
3. Integrate with applications using advanced APIs
4. Provide personalized communications
5. Access the Internet or a proprietary network

The key participants in the retail payments process—merchants, financial institutions and consumers—all use types of smart devices specific to their own needs.

Consumer Smart Devices

Smart devices enable consumers to engage in various commerce-related activities (among many other things, of course). Desktop and laptop computers are well known smart devices. Consumers routinely use them to shop online, visit social networks, search for deals and do product research.

Smartphones and tablets are also smart devices. In fact, they are becoming much more powerful and useful Universal Commerce enablers than traditional computers. Browser-equipped smartphones and tablets have all the functionality of computers, but they work anywhere—in the home, in a car or restaurant, or in the aisle of a store. They also have capabilities that traditional PCs do not possess, such as geo-location receivers (i.e., GPS) that provide exact positioning and navigation, cameras that can also work as barcode scanners, and other technologies. As such, smartphones and tablets are communication devices that provide businesses with the opportunity for context-sensitive, real-time, direct interaction with consumers. Some smartphones come with Near Field Communication (NFC) chips that enable contactless payments, and there are applications and devices (like First Data's Pogo™ solution) that allow merchants to accept payments anywhere via their own smartphones and tablets, as well. Accordingly, smartphones, and increasingly tablets, are at the heart of the Universal Commerce revolution.

In addition, other kinds of smart devices are emerging that will impact the way consumers purchase products and services: game consoles with Internet connectivity, web TV, Internet-connected cars and smart household appliances that integrate with other devices.

Merchant Smart Devices

Merchant smart devices are in-store appliances, eCommerce sites and mobile equipment that facilitate buying decisions and enable transactions. These can be in-lane Universal Commerce-capable point-of-sale terminals, mobile points of sale, kiosks, tablet-based in-store catalogs or other devices. Some manufacturers offer card-reading peripherals that turn tablets and smartphones into mobile payment terminals.

In addition to processing payment information and interacting with other devices and systems, merchant smart devices have specific requirements that enable them to function in a Universal Commerce environment:

1. They can be quickly and easily updated with new or revised software. The pace of change requires rapid innovation across currently deployed devices that were generally not designed for updates.
2. They need to have the physical capabilities to support interaction with consumer smart devices. This includes PIN entry, contact EMV card compatibility, contactless (including two-way mobile) functionality, existing magnetic swipe and a visual display. Ideally, the point-of-sale equipment would also support 2-D barcode scanning.
3. The capabilities should be as uniform as possible across a merchant's channels so consumers have a dependable engagement experience, regardless of how they shop. For instance, if a consumer earns rewards from an online purchase, those rewards should be immediately visible at check-out in any of that merchant's brick-and-mortar stores.

Financial Services Smart Devices

The ATM network has long been financial services providers' traditional smart device interface for consumer services. The ATM remains a critical customer touch point, and new capabilities enable financial services institutions to use their ATMs as another channel for individualized communications that foster cross-selling and customer loyalty. Institutions are also finding that tablets equipped with the right applications or CRM interfaces can reinvent the branch experience by streamlining workflows, reducing paperwork, and helping staff sell more effectively. In-branch tablets can also function as hybrid self-service channels that improve efficiency but also allow for personal interaction.

In addition, there is another consumer-facing smart device available to financial services institutions. This is the consumer's own mobile device. By providing customers with branded mobile banking applications, financial services institutions can effectively turn a consumer's smartphone into a virtual ATM that allows them to manage their accounts and receive individualized messages designed to promote services and increase loyalty. By pursuing an integrated Universal Commerce channel strategy, financial services providers can offer continuity of experience across online banking, mobile banking and ATMs.

How Smart Devices Are Changing Traditional Commerce

Universal Commerce and the smart devices that make it possible have fundamentally changed the way consumers interact with retailers and financial institutions. Although consumers have been quick to adapt to the possibilities of Universal Commerce, there are significant opportunities for businesses, as well.

Consider these examples of how smart devices are changing the way traditional commerce works:

- **Influencing Purchasing Decisions.** Merchants have traditionally influenced purchasing decisions through advertising and awareness campaigns, special promotions, and online and physical presences.

That influence has been partially subverted by social networks and user review sites that can be used to learn about products, services and merchants; mobile apps that can search for product reviews and optimum pricing; the practice of visiting stores to view products before purchasing them online; and deal publishers that exert their own control over promotion, publicity and pricing. Fortunately, the same technologies consumers use to build personalized decision-making spheres can also provide a direct communication channel for merchants. This has presented an opportunity for highly targeted promotions that are more cost effective than broad, poorly focused awareness advertising.

- **Streamlining Loyalty and Promotions.** Traditionally, coupons, offers and loyalty programs have been paper-based—a system that is inefficient for both businesses and consumers.

Fortunately, the emergence of Universal Commerce has facilitated the introduction of electronic promotions, virtual wallets that allow consumers to consolidate and track their offers, and offers transaction platforms that ensure a higher redemption rate and better tracking. These capabilities not only change the way consumers take advantage of offers, they alter the economics of offers and loyalty programs themselves. They also provide merchants with detailed data about the shopping behavior of customers.

- **Reinventing Payments.** With Universal Commerce, consumers are discovering new alternatives for payment and even alternative ways to utilize traditional payment methods with smart devices. Some alternative payments are designed to be used for transacting business only with a specific merchant, such as a prepaid mobile app. Some types of purchases, such as smartphone-based media purchases, are simply billed to the consumer's mobile phone account. Other emerging types of alternative payments use NFC technology to support use of a phone-based virtual wallet to make purchases, and still others rely on cloud-based systems to facilitate payments.

Many financial institutions are concerned about gradually being marginalized, but Universal Commerce provides them with strategic opportunities, as well. Traditional providers need to maintain their relationships with their customers by being available wherever and whenever customers are seeking to make payments. For instance, they are ideally suited to offer branded virtual wallets that provide the payment and offers tracking capabilities that consumers want. The virtual wallet would itself become a channel for sending value-added communications that keep branded payment products top of mind and top of wallet.

A smart device is not just an organizer, entertainer, or virtual call center. It is becoming a virtual wallet, a value finder, a shopping navigator, a virtual bank branch and even a direct communication channel to consumers. Clearly, smart devices are changing many aspects of traditional commerce, but how do they impact the way merchants and financial institutions do business?

Implications for Merchants

Merchants recognize that consumers now shop any time, any place. Customers can visit the online store while sitting in a coffee shop or an airplane. They can visit the online store while standing in the actual brick-and-mortar store, and at the same time, they can be visiting a competitor's online store. Accordingly, merchants must develop an engagement strategy that takes into account both consumer smart devices and in-store smart devices.

Engaging with consumer smart devices. Consumers use their smart devices to find products, identify good values, and seek information that helps them make purchasing decisions. If merchants are to influence consumers at this stage in the Universal Commerce buying cycle, they must be where the consumers are. They must have an online store presence, a mobile application, and they also need to be in other places their customers go—social media, search engines, YouTube, daily deal and offers publishers, and other relevant sites.

A positive user experience also requires consistency across channels and locations. Online and mobile channels should have a similar appearance and navigation structure. Consumers with smart devices should experience identical prices, loyalty points, discounts, return policies and redemption policies across all channels, both online and in the store. Some merchants allow customers to buy online and pick-up in store, a simple way to integrate the



Improving the overall customer experience is the end game for retailers today. Embracing the concept and strategies around consistent cross-channel messaging is the strategy merchants need to adopt to reach the goal. ”

“The Store: Intersection of All Channels,”
an e-book by Retail TouchPoints, 2011.

online and offline experiences. Some merchants also provide in-store product finder information in their online catalog. Consumers can access the online catalog on their mobile devices to find the products they are looking for in the store.

Some analysts see the rise of the “mobile commerce store” (MCS), an online shopping venue optimized for shoppers’ smart devices.⁵ The MCS can be a shopper’s focal point for researching products, verifying availability at nearby physical store locations, and then finding a product and comparing it to others on the shelf while in the store. At any location, a shopper can populate a virtual shopping cart, pay for those items available in the store, or have out-of-stock items shipped to the home or to the store.

Another important engagement strategy involves reaching out to consumers with timely, relevant communications. These can be triggered by customer location (for example, you can use “geo-fences” to trigger messages through your branded mobile app based on a customer’s location). Messages can also be tied to customer catalog activity, product searches, loyalty program status, and analytics related to past purchasing patterns. All of these provide a personalized customer engagement experience.

The role of merchant smart devices inside the store. There are many ways to deploy in-store merchant smart devices to enhance the consumer experience and streamline transaction processing. Whether merchants use traditional in-lane checkouts or mobile check-out systems, an essential capability of merchant smart devices is their ability to integrate with consumers’ online activities.

For instance, if a consumer purchases a daily deal or accepts an electronic coupon, the merchant’s transaction processing system should automatically apply that offer to the appropriate transaction at the time the customer makes a purchase. Why would merchants want this capability? There are several reasons:

- An offers processing platform that integrates with standard transaction processing speeds up the redemption process.
- It eliminates the need for special training of cashiers. This makes it possible for merchants to run several highly targeted promotions simultaneously without creating confusion at the check-out.
- It provides high value, detailed data about customer purchasing patterns and their effect on promotions, offers, and loyalty redemptions.
- It enables merchants to provide a higher level of personalized service to their customers.
- It alleviates the inconvenience for consumers of needing to manage printed coupons, by linking directly to their loyalty programs so they no longer have to carry paper coupons and loyalty cards.

Another example is the ability to accept mobile payments, either by scanning a barcode displayed on a mobile device as in the case of the coffee shop mobile app described earlier, or with contactless payments managed through the customer’s virtual wallet. In either case, customers expect that the offers and loyalty redemptions they track on their devices are automatically applied to their transactions. Mobile payment acceptance also provides merchants with an opportunity to create their own branded alternative payment methods.

Implications for Financial Institutions

In many ways, Universal Commerce is making life more complicated for traditional financial services providers. For one thing, it has made it possible for a number of alternative payment service providers to successfully compete with the providers of traditional consumer credit and debit cards. Some of those payment competitors may be the very merchants that financial services providers support with merchant services.

Another Universal Commerce reality is that consumers, especially younger consumers, often choose convenience and value over loyalty to a vendor, store, or financial institution. They know what they want, and have little patience for anything that stands in their way.

Nevertheless, smart devices are providing new opportunities for traditional financial institutions. According to a recent survey conducted by First Data, most consumers would rather have a virtual wallet application issued by their own bank than by any other entity (such as their mobile provider or a social network).⁶ This represents an obvious opportunity for financial services providers. As consumers move more of their financial management and purchasing activity to their mobile devices, they want a virtual wallet to track card accounts, loyalty programs, and offers, as well as to send and receive person-to-person payments. A bank-issued virtual wallet provides the bank with a direct communication channel to the consumer, creating an advantage in the competition to keep their payment products top of wallet.

When equipped with the right kind of mobile banking and virtual wallet applications, a consumer's smart device becomes a virtual ATM. Institutions are increasingly providing mobile apps that use a consumer's camera-equipped smartphone to photograph and deposit paper checks. Meanwhile, traditional ATMs still have a role to play. According to a survey by Aite, 45 percent of bank executives view the ATM channel as a differentiator and are looking to introduce advanced features, such as personalized offers and messaging that will enhance the customer experience.⁷ Just as with Universal Commerce engagement for merchants, a key success factor is consistency of the consumer experience across smart devices including mobile, online and ATM.

Conclusion

Smart devices have had a profound impact on the way consumers engage with merchants and financial institutions, effectively becoming the focal point of an integrated customer experience before, during and after a transaction. Accordingly, businesses must embrace these changes by developing Universal Commerce strategies that take into account the power and potential of smart devices. Merchants must carefully consider which types of smart devices best meet their needs—whether it is countertop terminals with advanced capabilities like contactless, EMV card acceptance and enhanced security; or mobile devices like smartphones and tablets that can accept payments on the go or in the store. Financial institutions must seek to implement a strategy that produces a uniform, integrated customer experience across smart devices—from in-branch, to online, to ATMs, to mobile banking and virtual wallets that all work together to promote greater usage and loyalty across all channels.

Consumers have quickly adapted their smart devices to the kind of shopping experience they desire. In doing so, they have taken the initiative in controlling many of the influences that have an effect on their purchasing decisions. However, the same technology can work for merchants and financial services providers too. A smart device strategy planned in the context of a larger Universal Commerce engagement program will provide merchants and financial services providers with the technology plan they need to optimize the customer experience.

For more information about adopting smart devices to support a robust Universal Commerce engagement strategy, contact your sales representative or visit our website at FirstData.com.

Notes

¹ Kaminsky, David. "POS Terminals on the Cusp of Change." White paper, Mercator Advisory Group, 2012.

² *Guardian*. "How the Smartphone is Killing the PC." June 5, 2011.

³ Nielsonwire. "Smartphones Account for Half of All Mobile Phones, Dominate New Phone Purchases in the US." News release, March 29, 2012.

⁴ Partners in Prepaid. "Smartphones Unleash Mobile Banking in North America." August 8, 2011.

⁵ Worden, Robert. "Enabling Smarter Commerce: Mobile Point of Sale and Mobile Commerce Stores." Frost & Sullivan white paper, undated.

⁶ Custom survey conducted by Forrester Consulting on behalf of First Data, "Evolution of Payments," August 2011

⁷ Aite Group. "Bank ATM executives must focus on creating a differentiated ATM experience through customer personalization and advanced features." News release, August 11, 2011.



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