

A First Data White Paper

# Universal Commerce: A Seamless, Personalized Purchase Experience for Today's Connected Consumers

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 anytime, and through any type of device.

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

**By:**

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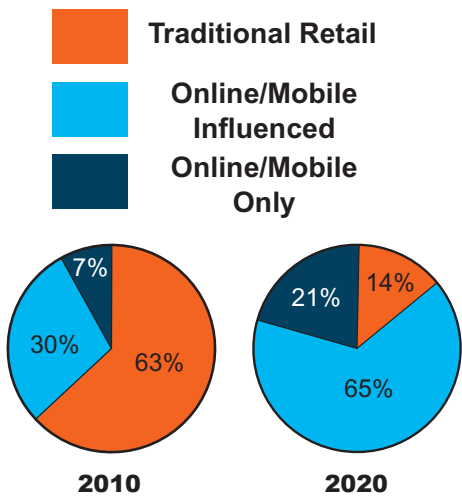
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# Executive Summary

In the early days of eCommerce, there was plenty of discussion about online business models rendering brick-and-mortar stores obsolete. Amazon.com became a prime example of an online store that transformed an entire retail segment—book selling.

Over the years, Amazon has expanded its model to include many more product categories, and almost all retailers have jumped into the online business scene. Online selling, involving mobile devices as well as desktop PCs, is more vibrant and active than ever. Yet brick-and-mortar stores, referred to as “offline” stores these days, have not gone away. People still shop at big box stores, at grocery stores, at specialty boutiques.

## Digital Trends Lead to Shifting Consumer Purchasing Patterns



Source: Anderson, Keith. "Why Online-to-Offline Integration is the Next Wave of E-Commerce Innovation." *Connected*, August 8, 2011.

As eCommerce has evolved, the picture of its relationship to traditional retail has become more complex. These charts show that online activity is not simply an alternate way of making purchases.<sup>1</sup> Online activity has a powerful influence on how consumers spend their money, and the relationship between online and offline is changing.

In recent years, there has been a huge increase in new online influencers. These include social media and messaging platforms like Twitter, offers programs such as group buying and daily deals, deal aggregators, mobile apps that help consumers locate products and comparison shop, new ways to make payments, new kinds of card-linked coupons and vouchers, and virtual wallets tied to major recognized brands.

Consumers are rapidly adopting these technologies, and in doing so, they are changing the way they engage with merchants and financial institutions. Consumers expect a shopping experience that seamlessly crosses different online and offline channels. Merchants and financial institutions recognize that new players—including deal publishers, alternative payments providers, mobile network operators, and others—are stepping in to provide services their customers want. To compete effectively, merchants and financial services providers need to deliver the kind of connected shopping experiences consumers are creating for themselves. However, offering a truly seamless and integrated engagement experience requires rethinking basic business models, practices, processes, and the technology infrastructure that supports them.

This paper examines how consumers are forcing the convergence of online and offline commerce into a Universal Commerce experience—one that is personalized, secure, integrated, and open. The paper also suggests strategies that leverage new and existing technology in ways that strengthen customer relationships.

# Introduction: The Transformation of Consumer Buying Behavior

There was a time when making a purchase involved consumers' going to stores or scouring through catalogs, looking at the merchandise, and selecting items that best suited their needs. Some consumers might even have clipped coupons out of the paper. And all of this occurred based on the limited information available to the consumers.



Armed with cards, smartphones, and tablets, consumers are ready for the convergence of online and offline transactions. Payments, incentives, and data-driven customer interactions are among the tools needed to handle that merger, but merchants and financial institutions are lagging behind.

First Data is in a unique position to take a leadership role in guiding the Universal Commerce strategy for this new, connected world.

*George Peabody, Director, Emerging Technologies Advisory Service  
Mercator Advisory Group, Inc.*

Today, 84 percent of consumers who go to the store have already decided what they are going to buy.<sup>2</sup> In some cases, consumers have already purchased the item online and are simply picking it up at the store, or they may be going to the store to redeem a daily deal they obtained online. This is part of a larger trend that is not only changing the way consumers consume, but it is changing the way merchants and financial services providers engage with their customers.

New technology and consumer expectations are driving many of the changes we see taking place in the retail markets today. Consumers have traditionally been an impatient lot—they want what they want when they want it, and they take full advantage of opportunities to get it quickly and at a great value. Fortunately for consumers, there are new technologies and services that enable those expectations to be fulfilled. These new technologies make it possible for consumers to quickly find the things they want, research them, see what others think about them, search for the best value, and make a purchase. Consumers are able to do these things while sitting at their desks or in their cars or while using a smartphone inside the store. By the time they make their purchase decisions, consumers are far better informed than ever before.

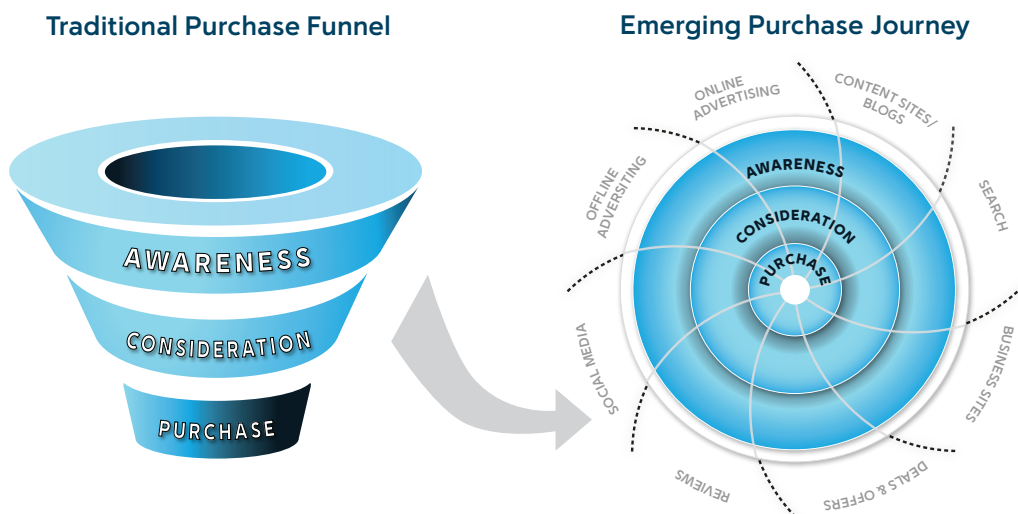
Where do consumers find the information that influences their purchasing decisions? These are some of today's key consumer decision influencers:

- **Social media.** Social media like Facebook, Twitter, Yelp, and blog spaces have become huge consumer influencers. These sites provide experiences and recommendations from other users, and they often have information about new products. Recent research shows that 58 percent of online consumers follow retailers through either a retailer's blog site, Twitter, or Facebook, and nearly half of survey respondents track information for specific products at these sites.<sup>3</sup> Another survey found that 74 percent of consumers had a purchasing decision influenced by social media.<sup>4</sup>
- **Price comparisons and special offers.** Consumers routinely do online and in-store price comparisons before making a buying decision. Some product review websites provide a list of retail outlets and the prices each store charges for a product. There are also free mobile applications that allow customers to photograph a barcode. Within seconds, the application returns information about price and availability of that product at locations close to the consumer's current location. Another way that consumers look for the best value is through daily deals and group buying opportunities. Sites like Groupon, LivingSocial, and many others (there are over 700 now, and the number is growing rapidly), alert registered consumers to special offers that might interest them. These are

typically offers for steeply discounted products and services. Recent research shows that 30 percent of consumers have used daily deal sites to purchase discounted products.<sup>5</sup> Of consumers who have used daily deals, 80 percent have found them to be a good value, and two thirds indicate they would return to the business again.<sup>6</sup>

- **Location-based services.** Increasingly, consumers are taking advantage of location-based offers and information. Many daily deal offers are location specific, and many of the new daily deals service providers specialize in product categories and geographical locations. A number of the daily deals sites also allow consumers to query them for deals in a specific product category that are within a specified distance of their current location. Twitter now permits geo-coded tweets that make it easier for consumers to track location-specific products and services.

This broad availability of self-selected, timely, and relevant consumer information, combined with new, more mobile ways to make payment, gives consumers greater control over when and how they make purchases. It also profoundly changes the way any retail entity engages with customers.



In a traditional purchase model, consumers followed a predictable path through a purchase funnel, from initial awareness to a final purchase decision. In today's world, consumers can shop, share information, and manage their accounts any time, any place. (A 2011 study performed by Shopper Sciences Inc. for Google found that consumers typically are influenced by more than 10 different information sources prior to making a purchasing decision.<sup>7</sup>) This capability enables them to find their own path to a purchase decision. In today's commerce, the customer purchase journey looks altogether different, as shown in the illustration above.

These developments may be wonderful for consumers, but the implications for merchants and financial services providers are profound. There are new players entering the retail commerce space who are vying for customer mind share, changing the traditional customer relationships, and competing for a piece of the transaction. Traditional marketing strategies are being diluted by influences that merchants and financial institutions cannot directly control. Consumers are becoming aggressive shoppers, which compounds all of these competitive forces.

These are major challenges for traditional merchants and financial services providers, and yet the same technologies that are empowering consumers can work for retailers and financial institutions, too. How is it possible to develop a competitive engagement strategy in this new age of tumultuous and fragmented commerce?

To answer that question, one must first take a closer look at what is really happening in commerce today.

# Convergence of Online and Offline Experiences: Welcome to the Age of Universal Commerce

What is Universal Commerce?

Universal Commerce is commerce that happens anytime, anywhere, and on any type of device. It is commerce in which many aspects of commercial activity are seamlessly integrated into one experience—shopping, payment, marketing (i.e., offers and coupons), loyalty, money management, offline and online experiences.

To see what this means for consumers, merchants, and financial services providers, one should consider three examples of Universal Commerce activities that are happening today.

## The Universal Commerce Experience

### Example 1: A typical Universal Commerce shopping experience

*A man wants to buy his wife a camera for her birthday.*

He posts a notice to his friends at his social networking site asking for recommendations. He receives a number of great suggestions and reviews many of them at a digital photography website. He finds a model he is interested in. This particular man is one of those guys who needs to see and touch a product before purchasing it. A quick web search shows the camera model is carried by a boutique photography shop nearby.

He drives to the photography shop, checks out the camera, and likes what he sees. While there, he uses his smartphone to go to a price-comparison website. He sees that the Super Shop within a mile of his current location carries the exact same model for \$20 less. Still using his smartphone, he goes to supershop.com to see if the camera is in stock at that store. It is, and he purchases the camera from Super Shop online right then, indicating he will do an in-store pick-up.

He smiles and waves to the cashier as he leaves the boutique photography shop on his way over to Super Shop to pick up his newly-purchased camera.

### Example 2: How a grocery store chain in Korea devised an innovative Universal Commerce approach to selling groceries

*Tesco is the second largest grocery store chain in Korea, after E-Mart. Tesco wants to become Korea's largest grocery retailer, but it is at a disadvantage in that it has fewer stores than E-Mart.*

After researching the way Koreans work, live, and shop for groceries, Tesco devised a virtual store sales strategy. It set up large billboard posters in subways. The posters are vibrantly lighted, highly colorful, life-size photographs of grocery store shelves with detailed images of products arranged on the shelves exactly the way they would be in the store. Product prices and bar codes are prominently displayed beneath each product.

Commuters heading home from work are able to do their grocery shopping in the subway using a mobile app on their smartphones. They run the app and fill a shopping cart by photographing barcodes of the products they want. When they touch the pay button, their purchase is charged to a card account on their phone.

A Tesco store nearest the shopper's home receives the order, boxes it, and delivers it. Typically, the groceries arrive at about the time the consumer is getting home from work.

This strategy has made Tesco the number one online grocery retailer in Korea, and although it is still a close second in overall grocery sales, it has gained significant market share.

**Example 3: Why Google Wallet represents a game changer for financial institutions**

*In 2011, Google became the first global brand to release a virtual wallet application for use on mobile devices. Consumers with contactless payment-enabled mobile phones running the Google Wallet application are now able to store card account information into their Google Wallets. They are also able to make highly secure payments directly from their phones at points-of-sale equipped for contactless payment acceptance. The application has these capabilities:*

- Google Wallet is an open virtual wallet application. This means that Google Wallet is able to support a variety of payment brands. It will eventually support a variety of contactless payment networks, as well. Although Google Wallet’s initial release only supported Citi MasterCard credit and debit accounts, Google has agreements with Visa, Mastercard and others for future inclusion in the wallet.
- Google Wallet also supports Google Prepaid Card, some merchant gift cards, and certain kinds of offers that consumers can redeem at participating merchants.

Google’s vision for Google Wallet is to provide an open payment platform that supports any debit and credit payment product in any contactless-enabled mobile device. Google also envisions Google Wallet supporting a wide variety of offers, couponing, and loyalty programs. This means consumers’ Google Wallets will house all of their payment cards for payments and track offers, coupons, and loyalty rewards. Consumers will also be able to make direct person-to-person money transfers using their virtual wallets.

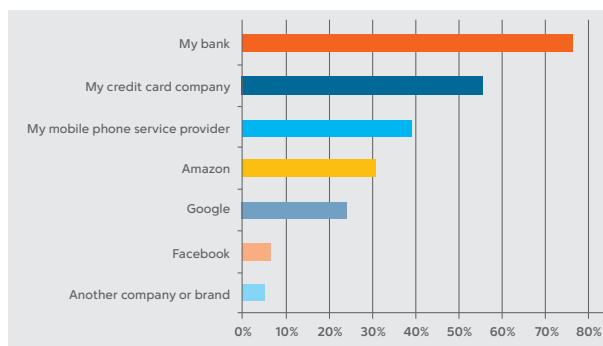
The release of Google Wallet has spurred other major brands to accelerate work on their own mobile payment solutions. Isis is a joint venture between Verizon Wireless, AT&T, and T-Mobile, and Visa has announced that its V.me virtual wallet will soon be ready for general release.

What does all this mean to financial institutions? For both merchant- and bank-branded card issuers, it is becoming clear that to remain competitive, they need to be in the phone. Financial institutions can pursue multiple strategies:

- **Own the wallet.** Develop and promote your own branded, secure virtual wallet application.
- **Be in other wallets.** Make your payment products virtual wallet-enabled, and pursue a strategy that encourages consumers to load your payment products into their virtual wallets.

According to a recent custom survey conducted by Forrester Consulting on behalf of 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).<sup>8</sup> This is an opportunity for banks to actively participate in the payment side of Universal Commerce and to integrate their own service offerings into branded virtual wallet solutions.

**Which of the following would you trust to offer a mobile wallet?**



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

These three examples present very different Universal Commerce experiences, and yet they have something in common. They all represent a blend of traditional and online commerce that is seamless for the consumer. That seamless integration of online-offline experiences is the critical driver of consumer interest in virtual wallets.

There are many ways consumers can engage in Universal Commerce that impact both merchants and financial institutions. The following table presents key elements of retail commerce and how they change in a world of Universal Commerce.

Traditional Commerce	Universal Commerce
<p><b>Physical Wallet:</b> Limited space for payment tools like credit/debit cards, prepaid cards, and checks. Fear of financial loss through theft.</p>	<p><b>Virtual Wallet:</b> Unlimited capacity for traditional and non-traditional payment types. Financial loss through theft is not a concern since virtual wallets are PIN protected.</p>
<p><b>Payment Account Management:</b> Phone and online tools exist for checking balances, reloading cards, and making payments.</p>	<p><b>Universal Account Management:</b> Consolidated account information is available for all cards in virtual wallet. Can reload cards, transfer funds, or make payments from a single point on a single device.</p>
<p><b>Offer/Coupon Management:</b> Consumer clips coupons from printed sources. Or consumer purchases and downloads offers online and prints them. Consumer takes paper copy to store for redemption. Coupons often lost or forgotten prior to redemption.</p>	<p><b>Consolidated Coupon Management:</b> Online coupons can be downloaded to virtual wallet for storage. Card-linked offers automatically deducted from relevant transactions, or virtual wallet may automatically present relevant coupons at checkout. Consumers receive coupon-related alerts. All offers-related transaction activity is automatically tracked from offer inception to redemption. There is no promotion-specific cashier training or coupon handling overhead for merchants.</p>
<p><b>Spend Tracking/Receipt Storage:</b> Consumer stores paper receipts for expense reporting and record keeping. Must scan or manually enter data for electronic bookkeeping.</p>	<p><b>Digital Receipt Management:</b> Receipts from virtual wallet transactions are stored in virtual wallet. Search records for specific transactions, or export reports to other devices and file formats for electronic bookkeeping.</p>
<p><b>Merchant Loyalty Programs:</b> Consumer carries multiple merchant loyalty cards/key fobs and presents them for scanning/discount at checkout. Loyalty programs may be linked to email for online offer delivery.</p>	<p><b>Virtual Merchant Loyalty Programs:</b> All loyalty program profiles are stored in virtual wallet. Loyalty discounts are automatically applied at checkout. Merchants can personalize offers using past purchase information and GPS tracking.</p>
<p><b>Financial Industry Loyalty Programs:</b> Card-based points or cash-back programs aimed at driving usage of financial industry payment tools. Consumer receives statements quarterly. Minimal ability to influence payment vehicle decision at point-of-sale.</p>	<p><b>Personalized Financial Loyalty Programs:</b> Financial institutions release branded virtual wallets with built-in benefits for bank customers. Leverage alerts to keep preferred payment accounts "top of wallet." Improve segmentation and personalization based on customer usage of cards in virtual wallet. Leverage location or profile-based offers and offers partnerships to incent account usage.</p>
<p><b>Advertising-Based Offers:</b> Ads direct consumers to website via URL or QR code where they can place an order or download an offer.</p>	<p><b>Immediate Gratification Advertising:</b> Consumers use their mobile devices to interact with ads or posters for downloading and storing offers, or completing a purchase (i.e., purchasing tickets which then are stored on mobile device or in virtual wallet). Merchants and financial institutions use consumer analytics and geo-locational data to push offers through alerts and targeted messaging.</p>
<p><b>Self Checkout:</b> Consumers avoid checkout lines by using self-checkout lanes to scan items and complete payment.</p>	<p><b>Virtual Checkout:</b> Consumers start shopping online at home, placing items in virtual shopping carts, and purchasing them with a virtual wallet. Any applicable coupons are automatically applied to their virtual payment. Consumers go to brick-and-mortar stores and pick up purchased items. Consumers may decide to look at additional physical items while at stores and use mobile devices to look up specific product information. Consumers place these physical items in their physical shopping carts, simultaneously scanning these new purchases into their virtual shopping carts. Consumers pay for additional physical items with virtual wallets; again, applicable coupons are automatically applied to purchase. Finally, store employees check consumers' physical shopping carts when consumers exit stores with their purchases.</p>
<p><b>Person-to-Person Transfers:</b> Consumers can initiate wire transfers, or transfer funds across accounts that are within the same financial institution.</p>	<p><b>Universal Person-to-Person Transfers:</b> Consumers can transfer funds directly between mobile devices equipped with virtual wallets.</p>

## The Consumer Perspective: It's All Just Shopping

In many ways, Universal Commerce is a fulfillment of what consumers want and expect. Whether they are shopping for merchandise, making financial services decisions, installing a virtual wallet on their mobile device, or deciding what payment accounts to use, consumers' Universal Commerce experience is pretty much the same. They want to know what their friends like. They want to find the best value. They want to know they are buying the right things. And they want it all now.

Merchants and financial institutions that cater to retail customers often think of their products and services according to the channels they use to promote and deliver them. The physical store or the bank branch anchors the business. The online store or website is a different business organization. Offers and coupons are often considered advertising, and loyalty programs serve a different purpose. Each channel has its own mission with customers. Then there are the new players in the online space including offer publishers that provide daily deals and group buying opportunities; alternative payment services providers such as PayPal; and competing virtual wallets coming from entirely different entities like Google, Visa, mobile network operators, and others. From merchants' and financial institutions' perspectives, it's all very complex and fragmented.

For consumers, however, it's all very simple or, rather, it should be very simple. Whether they are looking at a camera in one store and at the same time purchasing it at another store, or buying groceries while standing on a subway platform, anything should be possible for consumers. And today, nearly anything is possible.

Universal Commerce is emerging because consumers are leveraging technology in ways that change how commerce works. However, it is still a work in progress. There are five enablers essential to a robust Universal Commerce ecosystem.

## Five Essential Enablers of Universal Commerce

Universal Commerce is a seamless integration of many different commerce-dependent activities. What ties them all together? Universal Commerce depends on the following fundamental building blocks.

- **Smart Devices** – Smart devices perform commerce-related tasks in ways that integrate with other commerce-related devices and systems. For example, a smartphone is a smart device. It can run a shopping cart application, a mobile wallet, a barcode reader, merchant-specific applications, and any number of other commerce-related apps. It connects to the Internet so it can be used to find information, buy things, and manage money. It also may be enabled for contactless payments.



PCs and notebook computers are also smart devices, as are tablets. In-store point-of-sale terminals are smart devices, as well, especially if the devices automatically know when a particular consumer has an offer relevant to their current transaction. In fact, there are many categories of devices that can be enabled for Universal Commerce, including kiosks, ATM machines, game consoles, Internet TVs, vending machines, NFC-enabled or quick response (QR) posters, payment cards, and new generations of devices such as household appliances.

- **Actionable Intelligence** – Information is the heart of all Universal Commerce. Customers use mobile and online technology to get the information they need to purchase products and services they want. Merchants and financial institutions need information to effectively engage their customers through real-time, highly personalized communications.



This is an example of data in action: Super Shop notifies a customer, via the mobile app she downloaded onto her smart phone, that a new store was opened in her town. When the customer enters the Super Shop location, the store's mobile marketing system sends a real-time mobile message to the customer: "Welcome to Super Shop! Fuji apples are \$.99 per pound today. They are located on aisle 1C." The promotion is context-specific and targeted, based on factors such as the customer's preferences, buying patterns and recent purchases. The store delivers to the customer the information she wants when she wants it.

There are many ways merchants and financial institutions can leverage customer information into a real-time, personalized Universal Commerce engagement. They all depend on two key pieces of the intelligence puzzle:

- **Data** – This includes information about the customers' purchasing habits such as the customers' stated personal preferences, how often they shop, how much they spend, how often they use an ATM machine, where they are located, their purchase or acceptance history of special offers, "wish lists" and more.
- **Analytics** – Data alone, no matter how accurate and complete, is virtually useless. The ability to analyze customer information and behavioral data to provide insights is critical. The combination of information and insights into that data can identify what kinds of targeted offers and promotions will likely appeal to the customer and produce a desired customer spend objective.

Actionable intelligence makes it possible to engage customers in real time with directly relevant information.

- **Integrated Applications** – The applications that smart devices run become useful for Universal Commerce because they access cloud-based, commerce-related data. When a consumer purchases a card-linked offer (through a PC or a smartphone, for example), that offer information is stored in the cloud. The consumer then goes to a store and the offer is automatically redeemed at the checkout. That is possible because the point-of-sale equipment also has an application that accesses the offer information stored in the cloud. The consumer's smart devices have become integrated with the store's smart devices because they share the same cloud-based account-specific information.



This same level of integration makes it possible for commuters to purchase groceries while waiting for a train, knowing that those groceries will show up at their house in time for dinner. Seamless integration makes it possible for a consumer to accept a store-branded payment card, enter it into their virtual wallet, and make a payment with it. The integration also makes it possible for consumers to do these things whether they are in the store or not.

Cloud-based data can securely include consumers' payment information, personal profiles, product preferences, shopping patterns, loyalty program activity, coupons and offers, and more. Integrated applications empower consumers and enable merchants and financial institutions to offer more personalized customer service.

- **Enabling Infrastructure** – Smart devices using integrated applications that connect to cloud-based data depend on a secure enabling infrastructure to tie everything together. The skeleton of this enabling infrastructure exists, and it is running today. It consists of the Internet, mobile phone carrier networks, and payment processing networks.



However, by itself, this skeletal infrastructure is not enough. The challenge for merchants and financial institutions is to flesh out this infrastructure with Universal Commerce consumer engagement strategies and solutions. That is exactly what many of the new players, such as offers publishers and alternative payment services providers, are starting to do but on a limited scale. Global market reach requires a robust, integrated architecture that is:

- **Open:** An open architecture is an architecture that is platform agnostic. That means it supports many technologies important to Universal Commerce, such as NFC, bar code readers, EMV, PIN, different kinds of offers, different payment types, different kinds of virtual wallets, mobile points-of-sale, different payment networks, different mobile network operators, and emerging technologies that have not yet come into the market.

- **Scalable:** A scalable architecture enables solutions that support the largest commerce activities, as well as support operations on a global scale. A scalable architecture also allows quick solution modifications to meet changing marketplace demands. An effective Universal Commerce infrastructure simplifies the deployment of new applications and the scaling of existing ones. Openness and scalability work hand in hand. In the absence of a single, mandated payments standard and the ever-growing array of participants and applications, an enabling infrastructure must be adaptable and accommodating.
- **Secure:** A secure architecture is one that supports the most rigorous security solutions that protect transactions and commerce-dependent data. These solutions also help prevent fraud. If a merchant’s or financial services provider’s Universal Commerce engagement is not secure, consumers will stay away.

• **Partner Ecosystem** – The fourth enabler for Universal Commerce is partnership. This is critical because the very nature of Universal Commerce requires integrating the operations of major ecosystem players into innovative solutions that appeal to consumers. Partners may include mobile network operators, financial institutions, merchants, payment processors, online services providers, hardware manufacturers, and other entities entering the Universal Commerce space.

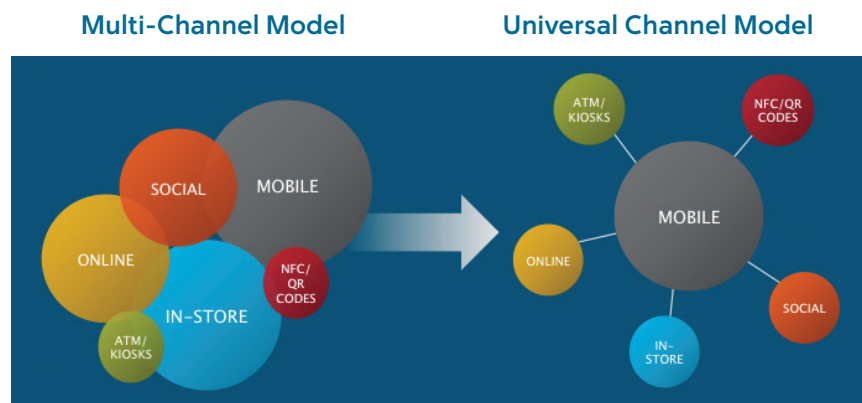


The essential Universal Commerce enablers are in place, and consumers are taking advantage of them. However, many merchants and financial institutions are unclear about how they can leverage Universal Commerce to their own advantage.

## Taming the Current Fragmented Universal Commerce Ecosystem

If consumers are using Universal Commerce to their advantage, there is no reason why merchants and financial services providers cannot do the same.

There are two basic aspects to this challenge. One involves how retail product and service companies view the engagement experience they provide to their customers. The other is the technical infrastructure they adopt to deliver it.



### Adopting a Universal Commerce Attitude

Consumers have taken control of their shopping experiences, using all available resources to achieve their objectives. They search, compare prices, consult friends, find offers, visit stores, make payments, and they use technology to do all these things in some way. For consumers, these are all part of a single shopping endeavor.

Merchants and financial services providers should view the engagement experience in the same way. All too often their offerings consist of a website that is separate and distinct from the offline experience, as well as various disconnected promotions and loyalty programs that often involve cumbersome, difficult-to-track paper coupons, and perhaps a loosely connected social network strategy.

Merchants and financial services providers can appeal to consumer expectations by thinking about their customer engagement strategy as integrated and seamless across channels, promotions, and services. Just as consumers are increasingly relying on their smart devices to personalize their shopping experiences, merchants and financial institutions can integrate their engagement models around the consumer's smart devices.

## How Merchants Can Win Universal Commerce Customers

For merchants, capturing and retaining customer mindshare and loyalty involves building a shopping experience that meets or exceeds customers' expectations. For example:

- Allow customers to view an online store while standing in the physical store for product comparisons;
- Allow customers to do price comparisons and consider real-time, context-sensitive offers based on location, personal preferences, and other timely and relevant information;
- Allow customers to redeem offers with online purchases (while merchants capture customers' offers redemption and transaction data at the same time);
- Allow customers to make a purchase via an online store and pick up the merchandise at the physical store; enable customers to augment their online transaction while in the store;
- Allow customers to use the online store to get directions to a physical location for a product in the physical store;
- Allow customers to request alerts on product availability;
- Allow customers to open a virtual shopping cart from a smart device and complete the purchase while in the store;
- Work with offer providers that automatically link offers to customer transactions at the time of checkout, and that provide detailed offer transaction reporting;
- Self-publish card-linked offers on your website and relevant social networking sites;
- Sell products directly from poster-based virtual stores and print advertising;
- Form loyalty program partnerships with handset manufacturers, mobile network operators, and others in the Universal Commerce ecosystem;
- ...and many other possibilities that haven't yet been imagined.

## How Financial Services Providers Can Win Universal Commerce Customers

Financial services providers not only engage directly with consumers who purchase and use their financial services, they engage with merchants to offer services and merchant-branded payment products. In both cases, financial institutions win by capturing consumer mindshare directly and enabling the commerce strategies of their merchant customers. Financial services providers can leverage Universal Commerce to promote their own products and services to customers. For example:

- The importance to financial services providers of owning virtual wallets and having a presence in other virtual wallets has already been discussed in the paper. This is an extension of "top of wallet" marketing strategies.
- Consumers prefer branded virtual wallets from their own banks. Leverage this preference by offering features, notifications, and alerts (such as account balance alerts and payment due alerts) that are only available to bank customers.

- Do not exclude other companies’ payments products from your virtual wallet, but offer special incentives to customers who use your payment products. Those incentives should extend across other financial service product offerings. This not only encourages deeper customer relationships and “stickiness,” it also strengthens the appeal of your virtual wallet over competing virtual wallets.
- Take advantage of wallet capabilities to personalize services and loyalty programs, and to gather data about customer preferences.
- Integrate channels so customers have a personalized and consistent wallet, website, and ATM experience.
- Partner with selected merchants to link offers and promotions to the use of certain payment products;
- Form loyalty program partnerships with handset manufacturers, mobile network operators, and others in the Universal Commerce ecosystem;
- ...and many other possibilities that haven’t yet been imagined.

By offering the kind of seamless experience consumers are already creating for themselves, merchants and financial institutions will be able to more effectively compete for customer mindshare, and they will have more control over the Universal Commerce customer engagement. Recognizing this is an important first step.

### Adopting a Universal Commerce Infrastructure Strategy

Adopting the same Universal Commerce attitude as consumers will get merchants and financial services providers pointed in the right direction. But how do they acquire the technical infrastructure needed to execute their Universal Commerce strategies?

Just as merchants rely on banks, payment processing services providers, and payment networks to process transactions on a day-to-day basis, any business engaging in Universal Commerce will need to rely on a network of partners to develop an integrated approach to the Universal Commerce infrastructure. As discussed earlier, Universal Commerce depends on these essential building blocks: smart devices, actionable intelligence, integrated applications and an enabling infrastructure, all accessing data in the cloud. Integration partners are the glue that binds the Universal Commerce strategy.

Many businesses have begun building Universal Commerce strategies based on commerce-enabled websites, online offers marketing programs, and branded mobile applications. However, these efforts often depend on service providers who specialize in these areas. They are in no position to offer integration across all these different channels, from analytics-driven marketing and offers to integrated online-offline experiences, from virtual wallets and virtual shopping carts to payment and funds transfers. To accomplish that level of integration, businesses will need to work with a partner or partners that have relationships across the full Universal Commerce ecosystem. For example:

- **Smart Devices** – Smart devices need to have ubiquitous access to other smart devices. For instance, smartphones need to be able to initiate payment, and points-of-sale terminals need to be able to accept payment from smartphones. And both must be able to automatically include a purchased offer or coupon in a payment process.



Point-of-sale devices enabled for Universal Commerce need to automatically recognize when customers have purchased relevant online offers so that redemptions can be tracked for easy analysis. Additionally, point-of-sale terminals need to recognize when a customer has an open virtual shopping cart containing items they have not yet purchased. Consumers will want to check their merchant-branded mobile app to see what they have in their virtual shopping cart and what rewards or offers they have accepted.

This same level of personalized marketing and payment integration applies to other kinds of smart devices as well, including kiosks and ATM machines, vending machines, posters and print advertising, and a great variety of other smart devices.

To effectively integrate this breadth of devices around Universal Commerce marketing, shopping, and payment activities, a service provider needs to offer contactless, online, and offline payment security; have extensive merchant and banking relationships; and have considerable experience processing both online and offline transactions.

- **Actionable Intelligence** – Actionable intelligence depends on accurate and complete data as well as analytics capabilities that integrate with marketing messages and offers programs. That means the kind of personalized engagement that Universal Commerce requires will only happen through partnership relationships. It’s unlikely that a single entity has all the data they need to anticipate a particular customer’s behavior.



For instance a merchant may have transactional information specific to customers who shop in their stores, but the merchant may not have direct access to customers’ geo-location information. An offers provider has a different set of data about the way offers perform. An agency managing the mobile marketing strategy may not have direct access to any of that data.

An analytics service provider can aggregate data from different sources and provide actionable analysis to partner entities that need it to drive initiatives like targeted messaging, offers, and in-store communications. However to do this effectively, the service provider must be capable of integrating with a diversity of systems that support Universal Commerce.

- **Integrated Applications** – As stated earlier, Universal Commerce depends on cloud-based transactional, analytical, and personal profile information. The key to enabling smart devices for ubiquitous access to each other is through applications that access Universal Commerce data stored in open, non-proprietary data formats. This does not mean the data is less secure. In fact, data security must be a vital priority for any Universal Commerce infrastructure services provider. This secure data is available to a broad spectrum of smart devices and applications authorized to access it. Data access is agnostic to other players in the Universal Commerce ecosystem.



For example, multiple providers are required to produce a targeted offer based on individual preferences and spending patterns, track it from purchase to redemption and automatically apply an accepted offer to that customer’s transaction. To ensure the right processes occur at the right times, an offers transaction platform must be fully integrated with the offer publisher, the consumer, and the merchant’s point-of-sale. This offers integration platform becomes a critical piece of the Universal Commerce infrastructure.

- **Enabling Infrastructure** – Enabling infrastructure requirements vary considerably with the type of Universal Commerce business activity. Consider Google Wallet, the virtual wallet from Google discussed earlier in the paper. Google Wallet depends on several partners to work. One of the key roles in the partnership is that of Trusted Services Manager (TSM). The TSM (provided by First Data in this case) is the enabling infrastructure that ties all of the Google Wallet key players together. When a consumer enters his payment account information into the Google Wallet, the TSM receives this information and uses its back-end systems to verify the card account with the card issuing bank. Upon receiving verification, the TSM provisions payment account information to the secure element in the consumer’s smartphone using the mobile network operator’s phone network. The TSM also securely stores all mobile account information. These steps all happen within seconds of the consumer’s entering his payment card information.



This enabling infrastructure conforms to the ideal qualities of a Universal Commerce infrastructure described earlier:

- **It is open.** Google Wallet is technically capable of supporting any payment brand, any payment network, any mobile network operator, and any NFC equipped phone.
- **It is scalable.** It is easy to add support for new payment types to Google Wallet
- **It is secure.** Google Wallet supports a variety of security strategies that are strong and integrated with security systems of other partnership members.

Google Wallet is designed to be a true Universal Commerce virtual wallet: it will ultimately accept any brand of payment card. Only a neutral TSM can provide this kind of Universal Commerce infrastructure support. Platform neutrality is one of the most important criteria for evaluating a Universal Commerce partner.

- **Partner Ecosystem** – Robust Universal Commerce solutions depend on industry partnerships. Again, Google Wallet is an excellent example. Google Wallet relies on an ecosystem of participants that includes Google, a card association, a contactless payment network, a mobile network operator, handset manufacturers, and a Trusted Services Manager. These partners agree to work together and integrate their operations to the extent necessary to support a truly Universal Commerce virtual wallet experience.



Building a Universal Commerce infrastructure has largely been a process of picking from an à la cart menu of specialized vendors. Many new and competing interests have been driving the process to date. However, a few large vendor solutions are emerging, solutions that have the breadth, depth, and power to bring it all together. The essential question for merchants and financial institutions today is how to identify the right Universal Commerce solution partner.

## Getting Started with Universal Commerce

For both merchants and financial services providers, building a comprehensive Universal Commerce strategy begins with choosing the right kind of solution partner or partners to integrate engagement channels into one Universal Commerce experience. Because Universal Commerce demands a high level of integration between core commerce activities, a principal partner should be an entity with deep experience in these areas: eCommerce, secure payment acceptance, payment account management, loyalty and offers program platforms, and consumer analytics.



Beyond the basic qualifications, a Universal Commerce solution partner also should provide some or all of these services and capabilities:

- Single contract for your global needs. This becomes especially important in the age of Universal Commerce when transactions can easily cross national and currency boundaries, and when companies pursue international sales strategies.
- Extensive network of financial institution and merchant relationships.
- Support for a wide range of payment types, including credit, debit, prepaid, e-check, and contactless.
- Unified offers platform with automatic transaction integration. Offers and deals are a major component of Universal Commerce. They are one of the principle ways of conducting segmented marketing campaigns and highly targeted, personalized marketing. An offers transaction platform makes it possible to collect valuable consumer data with no additional administrative overhead, and apply that data to designing more effective campaigns.
- Advanced analytics. This is essential to conducting effective offers and e-coupons campaigns, measuring them, and then adjusting them for greater effectiveness. Universal Commerce operates more rapidly than traditional commerce. Advanced analytics enable measuring and modifying campaigns in real time.
- Unified activity reporting. This is important because of the number of interrelated activities that constitute Universal Commerce.
- Tools for fast and easy product and service integrations that are solution and vendor agnostic.
- Advanced security, fraud detection, and fraud management solutions. Critical for supporting secure Universal Commerce. If consumers do not feel safe, they will not adopt Universal Commerce applications.
- Global support for card-present and card-not-present transaction processing.

- A trusted services manager solution. This will be of interest to any entity issuing mobile payment accounts.
- Back-end support for mobile banking solutions.

If a Universal Commerce solution partner cannot meet all of these qualifications on its own, the provider should have an experienced and proven network of partners that can meet the requirements. The provider must also have experience building integrated solutions with its partner network.

Once a Universal Commerce solution partner or partner network is selected, the next step is to begin seriously planning and implementing a strategy designed to produce a seamless, integrated customer experience.

## Getting Started for Merchants

For merchants, it is important to broaden payment acceptance options and focus on building an integrated, multi-channel marketing program. Consider these strategies:

- **Update point-of-sale equipment.** With the current availability of Google Wallet and other virtual wallets soon to follow, additional payment types and processing protocols are coming into the marketplace. Merchants should plan for supporting contactless payment, two-way NFC, EMV, and PIN. Merchants may also use the opportunity to update systems to support offers processing, enhanced security, and other non-NFC virtual wallet capabilities.

Some upgrades can be accomplished through software, while others (contactless payment, for instance), may require point-of-sale hardware changes, although many newer point-of-sale devices are being built with contactless capability as a standard feature.

- **"Mobilize" existing payment programs into mobile wallets.** Start the process of integrating branded payment programs, including retail credit cards, loyalty card programs, and prepaid cards, into popular mobile wallet applications. Cards and other payment options that are easily accessed through a mobile wallet are more likely to be used than those stuck in an old-fashioned wallet, and when your brand is tied to offers and promotions, consumers will give you first consideration.
- **Create a multichannel marketing program.** New technologies such as card-linked and mobile coupons, vouchers, and offers enable merchants to run more specialized promotions designed to build new business, increase visits by existing customers, and accelerate sales in targeted product categories. Specialty offers not only drive business, but they give merchants more information about consumer behavior and preferences in order to create even more effective deals. In addition, merchants can leverage social media channels and traditional gift cards to enhance the in-store experience, providing a well-rounded, consistent buying experience across all channels.

## Getting Started for Financial Institutions

For financial institutions, it is important to take this opportunity to enhance cardholder relationships. Alternative payment services providers and new virtual wallet solutions like Google Wallet and Isis (the solution currently being developed by a partnership of mobile network operators) are emerging without traditional financial services providers in a leadership role. Universal Commerce now provides financial institutions opportunities to assert themselves in the marketplace. Consider these strategies:

- **Own a virtual wallet.** Seventy-six percent of consumers say they would most trust their banks to provide a mobile wallet service.<sup>9</sup> Having your own branded virtual wallet provides unprecedented opportunity to reach consumers with highly relevant messages and alerts that build loyalty and promote valuable financial services.
- **"Mobilize" existing payment products into other virtual wallets.** Consumers prefer a choice of payment types and brands. They typically carry multiple cards in their physical wallets, and they will want to do the same with their virtual wallets. To maximize exposure and account usage, card issuers should strive to have cards in every mobile wallet.

- **Deliver a full, multichannel banking experience.** Consumers expect a consistent experience across all channels. Consider how creating a uniform, integrated experience from in-branch, to online, to ATMs, to mobile banking can translate into greater customer loyalty.
- **Rethink loyalty programs to leverage mobile opportunities.** In the world of Universal Commerce, there is more competition than ever from alternative payments. Leverage offers and merchant partnerships to ensure that your payment accounts are “top of the virtual wallet.” Also, use simple alerts about security, account balances, current loyalty/rewards offers, and spending management to cement customer loyalty.
- **Fraud and security enhancements.** The move toward a more connected experience also means new ways for criminals to steal sensitive cardholder payment data. Financial institutions should ensure that security and fraud reduction are top priorities to protect their businesses, their consumers, and their merchants. Implementing technologies like chip-based security (EMV) can protect card-present transactions for both physical cards and virtual wallets.

## Conclusion

Today’s Universal Commerce is a consumer-driven phenomenon. Consumers are leveraging technology to create their own personalized shopping and money management experiences. New players are jumping into the market to feed an insatiable consumer appetite for shopping enablers like product search, recommendations, and deals.

For merchants and financial institutions, Universal Commerce offers an opportunity to thrive by providing a consistent, seamless consumer engagement experience. It is also a key strategy for competing successfully against new entities entering the Universal Commerce space and co-opting business away from traditional players.

A Universal Commerce engagement strategy depends on envisioning a consistent experience that integrates across all existing channels as well as non-traditional ones such as social networks. It also involves partnering with a large vendor solution provider such as First Data, that has the breadth, depth, technical expertise, and partner relationships to integrate the many facets of a Universal Commerce experience.

For more information about Universal Commerce and building a Universal Commerce engagement strategy, contact First Data or visit our website at [FirstData.com](http://FirstData.com).

### Notes

<sup>1</sup> Anderson, Keith. “Why Online-to-Offline Integration is the Next Wave of E-Commerce Innovation.” *Connected*, August 8, 2011.

<sup>2</sup> Ebert, Todd. “Rethinking the Consumer Buying Process: How the Web Has Changed Everything.” *ReachLocal*, October, 2011.

<sup>3</sup> Team Position2. “What Influences Buying Decisions in #Social Media?” *Position2*, 2011.

<sup>4</sup> Beese, Jennifer. “Social Networks Influence 74% of Consumers’ Buying Decisions.” *sproutinsights*, November 11, 2011.

<sup>5</sup> Dailydeals.com. “The Top 5 Reasons Daily Deals Sites Will Save Consumers More Than Black Friday.” *PRNewswire*, December 6, 2011.

<sup>6</sup> Custom survey conducted by Forrester Consulting on behalf of First Data, “Evolution of Payments,” August 2011.

<sup>7</sup> Ebert, Todd. “Rethinking the Consumer Buying Process: How the Web Has Changed Everything.” *ReachLocal*, October, 2011.

<sup>8</sup> Custom survey conducted by Forrester Consulting on behalf of First Data, “Evolution of Payments,” August 2011.

<sup>9</sup> Ibid.



# The Global Leader in Electronic Commerce

Around the world every day, First Data makes payment transactions secure, fast and easy for merchants, financial institutions and their customers. We leverage our unparalleled product portfolio and expertise to deliver processing solutions that drive customer revenue and profitability. Whether the payment is by debit or credit, gift card, check or mobile phone, online or at the point of sale, First Data helps you maximize value for your business.

## About the Author

Bruce Dragt is senior vice president and division manager of Payment Acceptance at First Data Corporation and is responsible for driving product development globally across the company's suite of merchant products. These products include core acquiring, eCommerce, International Currency Solutions, Leasing, TASQ, TeleCheck and security products.

With a history in innovation, Dragt has played an influential role in developing new electronic payment solutions and bringing them to market. He has held roles in many facets of the payment lifecycle from card issuing to traditional merchant processing to alternative payments and mobile commerce.

Prior to joining First Data, Dragt worked for i2 Technologies and Financial Settlement Matrix as vice president of product management, where he created payment solutions associated with business-to-business transactions originated through electronic exchanges. In addition, he has worked at Wells Fargo Bank and held roles in the Business Direct Division and the Wholesale Internet Services Group.

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