

CONSUMER ACTION NEWS

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Consumer Action
1170 Market Street, Suite 500
San Francisco, CA 94102

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Mobile Payments Guide

Electronic payments using your smartphone

By Alegra Howard

The idea behind mobile payments is simple: Instead of paying with cash, check, credit or debit card, consumers can use their smartphone to pay for purchases via a mobile app. (Apps are software applications specifically designed to run on smartphones and other mobile devices.)

To help consumers understand their mobile payment choices, Consumer Action looked into how four of these payment systems work. Popular mobile payment systems Apple Pay and PayPal Mobile recently gained two new competitors: Android Pay and Samsung Pay.

Find complete details in our online Mobile Payments Guide (http://bit.ly/mobile_payments_guide_2015). Our at-a-glance chart appears on page 4 of this newsletter.

The technology basics

Mobile payments made using a smartphone typically employ a short-range wireless communication

process called near field communication (NFC). In the store, payment information is transferred wirelessly from a smartphone equipped with an NFC chip to an NFC “reader” at checkout. This is the same wireless technology used by Bluetooth devices, retail inventory control tags and keyless door entry apps. In order for the transaction to work, the two devices must be close to each other. Typically, customers tap their phones on the reader to pay (“tap-and-pay”). Apple Pay, Android Pay and Samsung Pay use NFC technology.

In addition to enabling NFC tap-and-pay purchases, Samsung Pay also can be used at terminals that read the magnetic stripe on the back of payment cards. When a credit, debit or gift card with a magnetic stripe is swiped through a card reader at a store, financial details are exchanged and the purchase is completed. For many years, consumers have relied on magnetic stripe technology to pay, and the terminals are far more widely available than

tap-and-pay terminals. Unlike other mobile payment platforms, Samsung Pay can store and convey the information traditionally contained on a card’s magnetic stripe to most point-of-sale terminals using a technology called magnetic secure transmission (MST).

Acceptance

If you are confused about which retailers accept mobile payments, you’re not alone. According to a mobile payments survey by risk management firm Kount Inc., nearly 24 percent of merchants accept payments from mobile wallets either online or in stores. Most retailers have not converted their payment terminals. The biggest hurdles to

wider adoption cited by retailers are cost (NFC terminals can cost \$500 to install) and fear of security breaches.

Even so, the number of merchants accepting Apple Pay has more than tripled in the last year to more than 700,000 stores. Android Pay is accepted at over a million retailers, including Duane Reade and Walgreens, Chevron, American Eagle, McDonalds, Jamba Juice and Foot Locker. More than 18,000 stores accept PayPal Mobile, including Famous Footwear, Dollar General, Home Depot, Babies“R”Us and Toys“R”Us. PayPal’s app features a map of nearby businesses that accept PayPal Mobile payments.

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Web Bonus

Find a complete rundown on the mobile payment systems we examined as well as more related articles online!

(http://bit.ly/CA_News_Fall_2015)

• Mobile payments: What happens to all that data?

Mobile payments collect a massive amount of data about our whereabouts and what we buy. How can we limit its use?

• Beyond the popular payment systems

Here are a couple of mobile payment apps that we thought you might want to know about.

What to know before you pay on the go

By Monica Steinisch

Who needs a wallet when you’ve got a smartphone in your pocket? The ability to pay for purchases—from your morning coffee and weekly groceries to household items and electronics—with a tap of your phone is becoming more available.

Consumer Action researched your mobile payment options in this ever-evolving market. Whether you’ve already embraced mobile payments or plan to get on board soon, this introduction to the systems, processes and protections will help you make informed decisions about paying by smartphone.

Small provider pool

Consumer Action’s survey features the major mobile payment systems: Apple Pay, Android Pay, PayPal Mobile and the newest entrant,

Samsung Pay. These mobile wallets or tap-and-pay systems are the only ones that are accepted in stores, online and in app by unaffiliated merchants. (See “Electronic payments using your smartphone,” just above. A chart on page 4 gives a quick overview of the mobile payment platforms we reviewed.)

We also reviewed retail mobile payment systems implemented by individual companies such as Starbucks, and CurrentC, a branded payment app developed by a group of retailers for use only in their stores. (See more about this in our online Web Bonus story at http://bit.ly/CA_News_Fall_2015.)

All but one of these payment systems require a particular device. Apple Pay requires use of an iPhone 6, or an Apple Watch paired with an iPhone 5 or later; Samsung Pay is designed for Samsung Galaxy S6

and Galaxy Note 5 devices; and Android Pay is compatible only with chip-enabled Android phones. (A list of compatible Android phones is available at www.nfcworld.com/nfc-phones-list/.)

PayPal Mobile is in a class of its own. It’s available to anyone with a mobile phone, regardless of make or model, but does not (yet) enable tap-and-pay purchases.

Payment technology

Pay-by-phone options fall into two categories: digital wallets and mobile payment systems.

PayPal Mobile, a wallet, enables you to store account information for credit cards, debit cards and bank accounts to make payments in stores (at participating retailers), online and, in some cases, to individuals. PayPal also allows you to maintain a “wallet balance”—cash stored in your mobile account—and even receive money.

Apple Pay, Android Pay and Samsung Pay do not store funds. They are mobile payment systems that use near field communication (NFC)

technology to facilitate payment. NFC allows devices to talk to each other, so a consumer who has a device with an NFC chip can pay by phone if a merchant has an NFC-enabled terminal, or reader. NFC technology is what allows Trader Joe’s customers to wave their phones at the counter to pay for groceries.

Samsung Pay was launched in the U.S. on September 28 and, uniquely, also works with traditional magnetic-stripe terminals—the kind found in virtually every store nationwide where credit/debit cards are accepted.

Android Pay launched two weeks earlier to replace Google Wallet as Google’s mobile payment system. Google Wallet hasn’t disappeared entirely, though. It is now the company’s peer-to-peer payment system, allowing individuals to make payments to each other.

PayPal Mobile account holders may have two options to pay. They will either enter a mobile phone number and PIN or use a one-time four-digit code for purchases at a

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Consumer Action www.consumer-action.org

Consumer Action has been a champion of underrepresented consumers nationwide since 1971. A non-profit 501(c)(3) organization, Consumer Action focuses on financial education that empowers low- and moderate-income and limited-English-speaking consumers to financially prosper.

By providing financial education materials in multiple languages, a free national hotline and ongoing financial services research, Consumer Action helps consumers assert their rights in the marketplace and make financially savvy choices.

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Chinese, English and Spanish spoken

San Francisco

1170 Market Street, Suite 500
San Francisco, CA 94102
(415) 777-9648
Email: info@consumer-action.org

Ken McEldowney
Executive Director

Michael Heffer
Business Manager

Kathy Li
Director, San Francisco (SF) Office

Nani Susanti Hansen
Associate Director, SF Office

Audrey Perrott
Associate Director,
Outreach & Training

Monica Steinisch
Senior Associate, Editorial

Jamie Woo
Community Outreach Manager

Joseph Ridout
Consumer Services Manager

Angela Kwan
Web Manager

Hazel Kong
Office Manager

Kinny Li, Cui Yan Xie
Project Associates

Vickie Tse
Development Coordinator

Rose Chan
Consumer Advice Coordinator

Schelly Gartner, Tasneem Pitalwala, Ralph Stone
Consumer Advice Counselors

Ricardo Perez
Mail Room Operations

Rain Lee
Administrative Assistant

Alden Chan, Robert La Support

Los Angeles

(213) 624-4631

Nelson Santiago
Community Outreach Manager

Linda Williams
Community Outreach & Training
Manager

Washington, DC

(202) 544-3088

Linda Sherry
Director, National Priorities

Ruth Susswein
Deputy Director, National Priorities
(Editor, *Consumer Action News*)

Lauren Hall
Associate, National Priorities

Alegra Howard
Associate, National Priorities

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Emerging tap-and-pay consumer protections

By Ruth Susswein

One of the most significant concerns for users of mobile phone payments—often called “tap-and-pay”—is how to resolve disputes about fraudulent or unauthorized charges.

Depending on the source of funds used to make a mobile payment (such as a credit, debit or prepaid card), the rules governing unauthorized charges differ. Currently, prepaid cards and mobile payments don't have the same legal protections as credit cards and debit cards. The Consumer Financial Protection Bureau (CFPB) is aiming to correct that with its extensive proposal to regulate general purpose reloadable prepaid cards and other stored-value payment products. In some cases that will include mobile payments.

Clarity by regulators will be welcome because the current environment is confusing. Reporter Bob Sullivan recently recounted a consumer's difficulty settling a Starbucks mobile payment dispute. Starbucks has a mobile app (and a reloadable prepaid card) that can be linked to a debit or credit card and used to make payments in its stores.

Ryan Benharris had \$200 stolen from his debit card after his Starbucks account was hijacked recently, but that's not why he was furious at the firm. He was angry about what happened next.

“I had to beg and plead to get my money back,” Benharris said. “They lied to me...I'm an attorney, and it took me four hours on the phone and six weeks to get a refund.”

His [Starbucks] account, with \$14 in stored value, was hijacked and hackers sucked two \$100 payments from his checking account debit card onto his Starbucks app, and then off the app to a gift card they controlled.

Ultimately, Starbucks refunded the stolen \$200-plus and sent him a \$100 gift card “for his trouble.” (Read the story online at <http://bit.ly/1OxFGkC>.)

The bank that issues your debit card usually handles disputes, but in this case a hacker accessed the debit card through a mobile payment system. In this dispute, Starbucks restored the funds—but is it the bank or the coffee company that should be resolving your problem?

Consumer protections for mobile payments are what you might call a “work in progress.” The underlying funding source is key to error

resolution and fraud protection with most mobile payment services. Problems with mobile transactions paid for with a linked credit or debit card typically should be taken up with your card issuer. If you are using a credit or debit card, you have the right to dispute errors and limit liability for unauthorized (fraudulent) charges. Generally, credit cards provide the strongest level of legal protection, capping liability for unauthorized use at \$50.

Debit card users' liability for unauthorized charges is limited to \$50 if reported within two business days, and up to \$500 after two business days. However, if consumers do not report unauthorized debit transactions within 60 days after their statement is mailed, they could face unlimited liability even when the charges result from theft.

Mobile wallet and prepaid card users have no clear-cut dispute and error resolution rights, although most issuers voluntarily provide “zero liability” assurances for fraud on credit, debit and prepaid cards.

To help patch these holes, the CFPB has proposed new rules that would apply to prepaid cards and mobile payment systems that store funds. Here are highlights of the proposed rule:

- Access to information: Account balance, payment history and a list of possible fees must be easily available online.

- Error resolution: Financial institutions would be required to investigate account errors in a “timely manner” or credit the account for the disputed amount while continuing to investigate.

- Fraud protection: Losses would be limited on prepaid accounts and stored-value mobile payment services. As with debit cards, consumer liability would be capped at \$50 if reported within two business days.

Prepaid cards and mobile payment accounts would have to be registered (with the issuer or financial institution) to be eligible for reimbursement and other protections.

Only mobile payment accounts that can store funds (mobile wallets) would be covered by CFPB rules. That means PayPal (which can store funds) and Starbucks accounts

(which are prepaid) likely would fall under CFPB consumer protections, while Apple Pay, Android Pay and Samsung Pay would not. (The latter link to customer bank and credit card accounts and do not store funds.)

PayPal has asked the CFPB to exempt its accounts from any new rules if customers link at least two payment sources (credit, debit, prepaid cards) to their PayPal accounts that already provide consumer protections.

Whether funds stored in a prepaid account or mobile wallet are protected by FDIC deposit insurance will depend on where you deposit the money. PayPal no longer offers FDIC insurance, but other prepaid accounts may. The CFPB's proposed rules would not require FDIC insurance on prepaid products or stored-value mobile payment accounts. It would, however, require customer notice about the lack of FDIC insurance.

Disputes

Google's Android Pay, Apple Pay and Samsung Pay are pass-through mobile payment systems. This means you link a payment card (credit or debit) to make payments. If you spot a billing error, contact the issuer of the credit or debit

card you linked to, as well as the merchant where the transaction occurred. In most cases,

you'll have to wait until the purchase posts to your credit or debit card account before you can dispute it. If the problem is about a charge you didn't make, then contact the card issuer immediately to alert them that someone used your card without your permission.

Lost phone? Apple Pay, Android Pay and Samsung Pay do not store payment card details on the phone, and they require passwords or PINs to make payments, so access to your payment information will be limited even if your phone is stolen. All three services offer a way to locate and lock stolen mobile phones. Apple offers Find My iPhone Activation Lock (<http://apple.co/1jr9p1Y>). You can erase information on your Android phone using the Android Device Manager (<http://bit.ly/1Rm6L81>). And Samsung users can use the company's Find My Mobile service (<http://bit.ly/1k84rXT>).

PayPal says it investigates all reports of unauthorized account use and tries to resolve claims within 10 days. As to customer disputes, you'd better pay close attention to your transactions.

PayPal's website (<http://bit.ly/1k84ymg>) states that merchants or sellers are advised to resolve disputes with buyers within 20 days. If a problem isn't resolved before that time, customers should contact PayPal and ask to file a claim. After day 20, disputes are closed and “cannot be reopened or escalated to a claim.”

Regardless of PayPal's policies, if a credit or debit card was used in a contested purchase or for unauthorized (fraudulent) charges, Consumer Action recommends that customers preserve their legal rights and dispute the PayPal charge with their card issuers. ■

Mobile wallet and prepaid card users have no clear-cut dispute and error resolution rights.

Payments

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Consumers have been slow to adopt mobile payments. Nine out of 10 consumers who don't have a mobile wallet said they were unlikely to start using one, according to a July Gallup poll. Just 13 percent of U.S. adults have a digital wallet on their smartphone, and of those, most hadn't used it in the last month. While men and Millennials (now 14-34 years old) were more likely to use a mobile wallet, security was the biggest concern. More than half cited fear of a lost phone or a data breach as reasons they had not adopted the technology.

Apple Pay

Apple Pay is a mobile payment system that can be used to make purchases in stores, at NFC-enabled terminals, and in certain apps. Its built-in digital wallet app (formerly called Passbook, now Apple Wallet) holds the user's debit and credit card information as well as loyalty card information, digital coupons, e-tickets and boarding passes.

Apple Pay is compatible only with newer iPhones (6, 6S and 6 Plus); the app comes pre-installed on these models. However, iPhone 5 users can use Apple Pay if they have an Apple Watch, a small, wireless device worn on the wrist that is compatible with an iPhone 5 or later.

Every transaction on your iPhone requires authentication with Touch ID (an Apple fingerprint recognition feature) or passcode. To make a purchase, raise your iPhone to an NFC sales terminal with your thumb placed on its Touch ID (home) button. You'll feel a slight vibration and hear a beep, which tells you the transaction is complete.

You'll receive a physical receipt from the merchant that includes dollar amount, date, time, your name, the last four digits of your Apple account number and the bankcard you used.

When the notification feature is enabled, Apple Wallet also will send you copies of transactions made with Apple Pay. Date and location of past transactions will be saved in your Apple Wallet but you'll need to review your credit card or bank statement to see the purchase amounts.

Making purchases with Apple Pay is free, and iPhone owners can link to more than 2,500 banks and credit card issuers. (Apple Pay is accepted at many major retailers, including Bloomingdale's, Duane Reade, Walgreens, Macy's, McDonald's, Nike, Office Depot, Panera Bread, Sephora and Staples.)

Apple Pay's transactions are tokenized, meaning that every time Apple Pay is used, it generates a one-time payment number and security code. Your payment card is assigned a virtual number (token) and saved in an encrypted chip on your phone. Your credit or debit card details are not stored on Apple's servers and are never shared during the transaction.

The merchant doesn't see your payment account number or your name and Apple doesn't collect any transaction data. If your transactions were hacked, the stolen data would be useless to thieves. This

means you wouldn't need to cancel your cards due to a breach or if you lost your phone. Apple's Find My iPhone feature also allows users to remotely shut down Apple Pay (and other apps) in case the phone is lost or stolen.

Android Pay/Google Wallet

Google Wallet was recently re-launched as a peer-to-peer payment system allowing anyone with a U.S. debit card to send and receive money for free using email addresses, even if the recipient doesn't have the Google app. Now Android Pay has replaced Google Wallet as Google's mobile payment system. Since the system is so new, we found that we couldn't get many of our questions answered through Google customer service but were able to learn more from Google executives.

Android Pay is a free mobile payment app that comes pre-installed on new Android phones and is compatible with Android 4.4 KitKat (released September 2013) and later versions. You can store an unlimited number of credit, debit, gift card and loyalty card numbers in the app, and shop at over one million stores using its tap-and-pay NFC technology. Eventually you will be able to use Android Pay to make purchases online and in retailers' apps.

There is no fee to make a purchase with Android Pay. While you may be able to make a few purchases offline using the device's memory, typically you will need a mobile Internet connection to use tap-and-pay in stores with an NFC terminal. To pay, tap your phone at the payment terminal and enter a four-digit Android Pay PIN to authorize payment. The terminal will flash or beep to show your payment is complete. The four-digit PIN provides an extra layer of security since Android phones don't yet feature fingerprint ID capability.

Your receipt includes the merchant's location, dollar amount, transaction ID, date, type of payment card used and its last four digits. You can review past transactions in the app by selecting the card you used, but you will still need the merchant's paper receipt to return merchandise.

Like Apple Pay, Android Pay uses tokenization technology, generating a one-time virtual number for the transaction. In the case of a data breach, thieves would gain access only to a token number, not your actual payment account details. Card information is stored in Google's remote Internet datacenters ("cloud" storage). To allow for returns, the token remains active for 120 days following the end of the month in which the purchase was made.

PayPal Mobile

PayPal is a digital payments pioneer; many consumers use it as an intermediary to eliminate the need to reveal bank account or credit card numbers to online merchants. The PayPal Mobile payment app lets you manage your account, send money, request funds and pay at some brick-and-mortar stores, online and via certain retailer apps.

Before you can use PayPal, you need to sign up for an account either online or by downloading the PayPal Mobile app to your mobile

How to get the most out of mobile payments

Secure it. Apart from fingerprint fortification, the best way to ensure that your mobile wallet is as safe as possible is to password-protect your phone.

Validate it. Android Pay requires you to enter a payment PIN (personal identification number) before you tap and pay. PayPal also uses a mobile PIN or four-digit code. Samsung Pay and Apple Pay use fingerprint verification or PIN.

Turn it off. When not making a payment, disabling Near Field Communication (NFC) (under your phone's Settings) will prevent others from accessing your device.

Register it. Register your mobile payment account with the account issuer to ensure that you qualify for all available consumer protections, such as loss limits for fraud and theft and the ability to address billing errors. If you use a prepaid card as an underlying payment source, this is especially important.

Know before you go. Check online before you shop to see if your mobile wallet is accepted where you plan to shop.

Reap rewards. Register your loyalty cards or coupon programs in your mobile payment account, or app, to receive discounts at retailers you frequent.

Check coverage. If you store funds in a mobile wallet, ask if that money is FDIC-insured. If it's not FDIC-insured or otherwise protected from loss, consider other payment options. — R.S.

phone. Mobile users are asked to register their cell phone number and set up a permanent mobile PIN. PayPal will send you a text message to confirm that your mobile number has been registered successfully.

PayPal Mobile users have two options for using their digital wallet to make purchases:

1. Choose PayPal at a store's payment terminal and enter your mobile phone number and PIN. Following a successful transaction, you'll get a receipt from the merchant and an email notification from PayPal. Technically, this option doesn't require your cell phone to make purchases, just your phone number and mobile PIN.

2. Download the PayPal app, which is free and compatible with all smartphones. (The app displays nearby merchants that accept PayPal as payment.) The app will generate a four-digit code good for only two hours at a specific merchant location. At checkout, choose PayPal and enter the code. An electronic receipt will be sent to you by email immediately after your purchase. Recent transaction activity is stored in the PayPal app.

PayPal doesn't share your financial information with merchants. According to PayPal, as long as you don't share your mobile PIN with anyone but the merchant, your information should remain secure.

PayPal says that most of the 18,000 stores that accept PayPal use its mobile number and PIN system at checkout (option #1 above). Retailers that accept the mobile number and PIN do not accept a PayPal four-digit code (option #2 above). The two major chains that accept option #2 are Dollar General and AutoZone.

Samsung Pay

Electronics manufacturer Samsung launched its mobile payment system, Samsung Pay, in September. The fact that it can use both NFC and MST technology might give Samsung a leg up on the competition, since 80 percent of merchants worldwide are able to accept one or the other.

Samsung Pay is only available on

the Galaxy S6, S6 edge, S6 edge+ and Note5 smartphones. Users also must provide a supported payment card from a participating bank and establish a separate Samsung account. Samsung Pay's NFC tap-and-pay technology uses fingerprint ID verification to authorize transactions via the phone's Internet connection. If the phone can't connect to mobile broadband, you can still make purchases "off-line" because the Samsung Pay app can securely send card details for a limited number of transactions to merchants' magnetic stripe or NFC readers. You must authorize these purchases at the point of sale with your Samsung Pay PIN.

Samsung Pay uses tokenization to encrypt your financial details and does not share actual card information with merchants. A data connection is needed to generate tokens. However, as noted previously, a limited number of purchases can be made without reconnecting to the Internet.

If your phone is lost or stolen, Samsung's Find My Mobile feature can be used to locate, lock or clear the phone.

The emerging landscape

PayPal and Android Pay will appeal to some consumers because both systems are compatible with older phones and operating systems. Apple Pay and PayPal's phone and PIN option do not require a data connection or Wi-Fi signal to make purchases. (We strongly advise against using unfamiliar or public Wi-Fi to conduct financial transactions.) Samsung Pay is flexible about which terminals it can use.

But if you're still not sure which mobile payment system to use, hold on to your real wallet for the time being. The mobile payment industry is rapidly evolving—it was changing even while we were double-checking the results of our initial research.

With Google still rolling out Android Pay features, Samsung Pay's recent launch and PayPal's acquisition of a mobile payment service provider, Paydiant, consumers are likely to have new mobile payment options in the near future. ■

Mobile Payment Guide: At a glance

All mobile payment systems listed are free to use for making purchases. Some of the newer phones will have the mobile payment apps pre-installed. If the app you'd like to use is compatible with your phone, you can download it from the Apple App Store or Google Play Store. Find complete details on these payment systems at http://bit.ly/mobile_payments_guide_2015. Please note that you are prohibited from using Consumer Action's name or any reference to its research in advertising or for any other commercial purpose.

| Payment System | Device Needed | Funding Sources | Technology | Data/ID Protection | Disputes | Find Accepted Locations |
|-----------------------------|--|--|---|---|------------------|---|
| Android Pay (Google) | Android Pay comes pre-installed on new Android phones and is compatible with Android 4.4 KitKat and later versions | Google Wallet Card and/or an unlimited number of credit, debit and prepaid cards | Near field communication (NFC) | Tokenization hides user's account information; four-digit PIN | Bank/card issuer | Look for NFC symbol or MasterCard contactless payments at retailers. Online: www.android.com/pay/#merchants |
| Apple Pay | iPhone 6 or higher running iOS 8.1 or higher; Apple Watch and the latest iPads also are compatible (iPhone 5 is compatible only when paired with an Apple Watch) | An unlimited number of credit and debit cards | Near field communication (NFC) | Device account number; tokenized transactions; fingerprint ID; financial information not saved by Apple | Bank/card issuer | Look for NFC symbol or Apple Pay symbol at checkout. Online: www.apple.com/apple-pay/where-to-use-apple-pay/ |
| PayPal Mobile | A mobile phone that can send and receive text messages and/or an Internet-enabled mobile device | Up to eight credit/debit/bank accounts | Mobile phone | Login for app; mobile PIN; app-generated transaction codes | PayPal | Listed in the app. Online: www.paypal.com/webapps/mpp/store-locator |
| Samsung Pay | Samsung Galaxy S6 and Note5 models and higher; Samsung Pay comes pre-installed on compatible devices and can't be added to other devices | Up to 10 cards (credit, debit and private label retail cards) | Near field communication (NFC) and magnetic secure transmission (MST) | Samsung's Knox security software; PIN authentication; tokenized transactions; fingerprint ID | Bank/card issuer | Because of its dual technology, it can be used anywhere credit and debit cards are accepted |

On the go

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particular pre-selected store. (PayPal also plans to introduce a wallet with NFC technology by year's end.)

Use of any of these systems is dependent on merchant acceptance. Currently, only a small percentage of merchants are equipped with NFC-enabled terminals, but that number was expected to grow by October of this year, when some stores installed chip-ready terminals to fight fraud and avoid being held responsible for counterfeit credit card purchases.

The U.S. credit and debit card industry is in the midst of a transition to chip cards using EMV (Europay, MasterCard, and Visa) technology, which requires special terminals to read the embedded chip. Learn more in Consumer Action's "A consumer's guide to 'chip' cards" (<http://bit.ly/1hHjITi>).

Some chip card terminals are also able to "read" NFC-enabled mobile devices. Many merchants are expected to invest in the NFC function in these readers to serve shoppers who

embrace mobile payments. To foster the budding tap-and-pay industry, payment processing companies like Square are giving away chip readers to many small and medium-sized merchants.

Consumer protections

In terms of safety against fraud, mobile payments that use tokenization have the edge. Tokenization substitutes a unique code (token) for your identification and payment information. Even if there were a breach, no card numbers are stored, so the one-time-use token would be worthless for additional transactions.

Apple Pay and Android Pay use tokenization. Samsung Pay uses tokenization for NFC payments, but not for MST payments (those that read the payment information in the card's magnetic stripe). PayPal does not use tokenization.

Billing errors and fraud problems are usually handled by the underlying payment source—your credit or debit card issuer. (For more information, see "Emerging tap-and-pay consumer protections," page 2.)

The best protection against

unauthorized use of your mobile device—and the apps and data it contains—is setting it to lock after a brief period of inactivity, accessible only by passcode or fingerprint.

For the time being, it's unlikely you'd be able to get by without carrying at least one payment card or some cash.

According to a CBS News story, an AP reporter tried living for one week last year in New York without carrying cash or credit cards, relying only on payments with his smartphone. While he found that many places accepted mobile payments, many did not, and the transactions were not always successful. Sometimes he ended up borrowing cash for a meal, or walking home because he couldn't reload his MetroCard so he could ride the subway. Of course, these difficulties should diminish with time.

Weighing the options

Of all the major mobile payment systems, Samsung Pay has a considerable advantage given that its combination NFC and MST technology has the potential to be accepted at

nearly any retail location.

PayPal's system does not always require you to have a mobile phone with you at the time of payment, as long as you have the phone number and account PIN or transaction code.

Until PayPal adds NFC functionality, consumers who are drawn to the convenience of tap-and-pay technology may find PayPal more suited for its traditional uses—online purchases/sales and money transfers—rather than mobile payments.

All mobile payment systems are free to make purchases. Choosing one of the payment options will likely come down to which device you have or prefer to use and which payment system is accepted at the places you like to shop.

The mobile payment environment is changing so rapidly that consumers who are on the sidelines today might be rewarded with even better options tomorrow. ■

Smart use of smartphones

The Federal Reserve Board's fourth annual report on Consumers and Mobile Financial Services 2015 (<http://1.usa.gov/1KbWJkw>) looked at how consumers bank and pay using mobile phones. It also examined consumers' use of mobile phones to inform shopping decisions.

While the Federal Reserve found that only 22 percent of surveyed mobile phone users made a mobile payment in the 12 months prior to the survey, 47 percent had used their phone to compare prices online, and 33 percent had scanned a barcode to find the best price while shopping at a retail store. ■

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