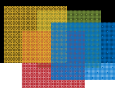




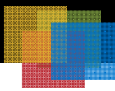
Buying into a new payment future

Contactless solutions are transforming the payment process. Speed, expediency and increased operational efficiency have put contactless on the counter in convenience, quick service and ticketing environments.



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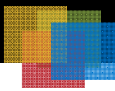


Introduction

Recent innovations at the point of sale, such as chip and PIN and the adoption of wireless technologies, have brought about significant changes to the way consumers pay. As consumers continue to make the shift from cash to electronic payments, the latest technological revolution to transform the customer experience at the point of sale (POS) is contactless payment.

The current momentum behind contactless payment began in August 2004, when McDonald's restaurants announced an agreement to accept MasterCard PayPass at selected US locations, installing VeriFone's Omni 7000MPD. With McDonald's leading the way, contactless payment cards made the transition to becoming a mainstream payment option. Since then, four major card associations have implemented initiatives to make contactless payment an everyday reality.

Millions of consumers are already familiar with contactless payment technologies through electronic 'wave and go' toll collection systems such as EZPass and FasTraK, and 'tap and go' travel on transit systems such as Transport for London's Oyster card. Now, an increasing number of consumers worldwide are using contactless payment devices — such as cards and key fobs — to speed through payment transactions at gas stations, convenience stores and quick service restaurants (QSRs).



With ever more sophisticated consumers demanding speed and simplicity when paying for goods and services, contactless payment solutions offer the ideal route to genuinely improve the customer experience while simultaneously generating wider business rewards.

Examining the Gains

For issuers and service providers alike, the contactless payment interface stimulates additional card-based transactions. The Smart Card Alliance’s investigation of contactless payments in the US confirmed that not only is this technology significantly faster than contact chip and PIN transactions, but also reported:

- increased cardholder transaction volumes
- increased average transaction size
- increased transaction speeds

The two primary benefits of contactless payment for both consumers and retailers are

speed and convenience. Market research firm Tower Group estimates that contactless payment can reduce individual transaction times by 10 to 15 seconds and, in busy retail environments, this speed of service is attractive. For this reason contactless payment transactions below a certain

Contactless payment benefits

Card Associations and issuers:

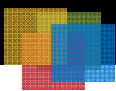
- increased card transaction volumes and revenue
- penetrate cash transaction markets
- minimal change to infrastructure

Merchants:

- reduced transaction times
- reduced cash handling and operating costs
- improved reliability
- ease of introduction to existing payment infrastructure

Consumers:

- improved transaction speed and convenience
- trouble-free — no need to carry cash

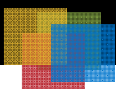


threshold—typically set to US \$25—can be made without requiring cardholder authentication.

Faster transactions equate to faster service and shorter queues, and contribute to lower levels of customer drop-out. For retailers, increased throughput translates to increased revenue — particularly in convenience and quick service settings. In effect, contactless payment gives retailers the ability to better serve a higher percentage of customers entering their premises, thereby generating increased revenue opportunities and enhanced customer loyalty through improved customer service.

Contactless capabilities at the POS means retailers also benefit from lower costs through reduced cash handling and improved operational efficiencies. This makes contactless payment a viable economic proposition, even for small retailers previously unable to justify the acceptance of card payment for low-value transactions.

Tap-and-go payment not only transforms the interaction between cardholder and retailer at the POS but also opens the way to new customer relationship management (CRM) initiatives. In the future, contactless and near field communications (NFC) interfaces will enable payment systems to play a key role in recognising and serving



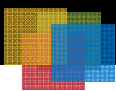
customers in retail environments – cardholders will tap or wave a contactless card on entering the store – or over specific items – to explore personalised special offers.

In terms of deployment, a key advantage of implementing contactless solutions is that the technology can be readily adapted to current payment systems. Existing POS devices can be easily modified with an interface to a contactless reader, giving retailers a ‘future proofed’ solution to support full-scale contactless rollouts.

Successful So Far

Transport for London’s Oyster card and the Warsaw City card trial in Poland have proved contactless technology is highly effective for fare collection in mass transit environments. In addition to speeding the flow of travellers in bus and train stations, this form of automatic fare collection has the added benefit of eradicating cash and fraud issues for transit agencies.

Transit agencies and card associations are now working together to extend the use of contactless payment solutions. In December 2006, Oyster and Visa announced a new co-branded multi-application card for transit and retail payment. Under this arrangement, users will benefit from Oyster and Visa’s ‘wave and pay’ function on a single card to quickly and securely pay for low cost items up to the value of £10.00 while travelling around London. In Hong Kong, over 11 million Octopus cardholders are now able to pay

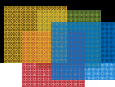


for groceries as well as transport and parking using a single contactless card.

Another recent successful trial was undertaken in New York and brought together MasterCard, CitiBank, the Metropolitan Transit Authority (MTA), and VeriFone.

Every day the MTA moves eight million passengers around New York City via its subway and bus network. Since the summer of 2006 passengers have been able to use their MasterCard PayPass card to gain access to the subway through turnstiles at 30 subway stations along the Lexington Line, which runs the length of Manhattan Island via Grand Central Station. By using VeriFone's PCI certified Secura 720 unattended payment devices and contactless interface, the journey can be billed to their MasterCard account in the same way as any other purchase made using their PayPass card. The contactless 'landing pad' incorporates easy-to-read go/no-go indicators and – as performance in this hectic environment was key – VeriFone's solutions meet transaction times of under 0.3 seconds to read, verify, accept or reject the card and open the turnstile gate. This speed of transaction allows the subway to keep running at peak efficiency even during rush hour.

Overwhelming positive consumer response resulted in the original trial being extended by an additional 12 months, and the MTA is now planning to extend the scheme to buses.



The ongoing success of contactless payment in transport will propel contactless into acceptance in a variety of retail environments including fast food, local convenience stores, sandwich and coffee shops, pubs, as well as taxis and so forth.

Leading the payment wave

Contactless payment is ideal in a variety of environments, including:

- QSR
- Pharmacies and drugstores
- Cinemas and theatres
- Supermarkets
- Deli stores
- Kiosks
- Vending machines
- Sports stadiums
- Parking
- Transit

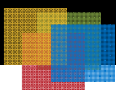
Contactless payment is also ideal for unattended turnstile applications, removing the cost of staffing a reception or box office. The technology can be used to identify season ticket holders at cinemas and sports grounds, paid members or session users at fitness centres, or to control access to buildings or events such as exhibitions.

Future Growth

Industry sources estimate that over 17 million cards have been issued in the United States alone since mid-2005, and the number of contactless cards could grow to two or three times current volumes.

As of January 2007, US issuers that have adopted contactless payment technology include Advanta, American Express, Bank of America, Citibank, Citizens Bank, GE Consumer Finance, HSBC Bank, JPMorgan Chase, KeyBank, Meijer Stores, US Bank and Wells Fargo.

Widespread consumer acceptance and use of contactless payment in Europe is set to escalate

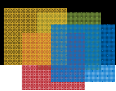


dramatically in the coming months. In the UK, for example, the initial launch of contactless payment took place in September 2007; at the outset around half a million cards were issued with at least 1,000 retailers participating. Industry estimates suggest that by the end of 2008 over 5 million contactless cards will be issued under the UK scheme, and that these will be accepted in at least 100,000 merchant locations.

How Does Contactless Work?

Contactless payment transactions require no physical contact between the consumer payment device and the POS device. In a contactless payment transaction, the consumer holds the contactless card or device in close proximity to the merchant POS solution – there is no need to accurately orient the card or device – and the payment account information is communicated wirelessly (via radio frequency). If multiple contactless devices are held within proximity of a reader, anti-collision will prevent multiple devices from being read. To ensure a deliberate card read, a single contactless device must be placed within range of the reader.

Contactless technology is ideal for speeding up small-value payment transactions – typically below \$25 – where cash is the predominant form of payment. Rather than inserting a payment card into an EFTPoS (Electronic Funds Transfer Point of Sale) device, or swiping it through a magnetic stripe reader, a cardholder can use contactless to



pay for goods by simply waving a card within 10cm of the contactless reader. To enable retailers to leverage their existing payment infrastructure, these readers are available from VeriFone as modular add-ons for existing EFTPoS devices.

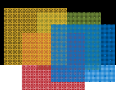
With no PIN or signature requirement, contactless payment is easy to operate. As a result of the flexibility of form factor permitted by the interface, small contactless key fobs are emerging as a practical and easy access alternative to cards.

The contactless interface can also be used with chip-based cards or in magnetic stripe card environments. In Chip and PIN scenarios, PIN entry can be used to verify contactless transactions. In a non-Chip and PIN transaction, data derived from magnetic stripe-related information and secret data is transmitted by the contactless chip in response to a signal from an Electronic Funds Transfer Point of Sale device. In some instances, this data undergoes authorisation in a manner similar to a magnetic stripe transaction.

The Contactless Transaction

There are two primary components of a contactless system:

Contactless reader – a mechanism which emits electromagnetic waves and is able to communicate with a contactless card appearing in its range. The high frequency radio waves that the contactless card reader emits are used to both provide power to the contactless card and to

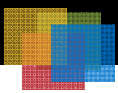


communicate information between the card and the reader.

Contactless card or device – the antenna on the contactless card absorbs the electromagnetic waves emitted from the contactless reader in order to power the transponder. The transponder is a chip connected to the antenna which is able to communicate with the reader. Transponders can be read-only, read-write memory or processor devices, and can be embedded in a card, paper label, key fob, mobile phone and so on.

The process underpinning a contactless transaction is:

- The cardholder waves a contactless card within a few inches of the contactless reader. Once a transponder appears within the range of the device's contactless card reader, the characteristics of the reader's electromagnetic field are changed and the contactless smart chip is powered "on".
- Once the chip is powered on, a wireless communication protocol (system agreement on low level communication parameters) is established between the contactless reader and the card, and the data transmission begins.
- Mutual authentication is performed and secured channel (encryption) is established, if applicable.



Security Features

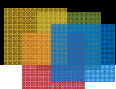
Contactless cards are underpinned by the same advanced technology that secures chip and PIN transactions. Although the use of a contactless interface does not routinely require the consumer to enter a PIN, the card's chip tracks activity – and after a number of consecutive transactions may prompt the user to enter a PIN. This security feature is designed to re-affirm card possession and deter any potential fraudulent use, should the card be lost or stolen.

Additional security measures can also include a unique built-in 128-bit encrypted key on every contactless card, generating a Dynamic Card Verification Value. At a system level, payment networks also have the ability to automatically detect and reject any attempt to use the same transaction information more than once.

Standards

Contactless payments use the international standard ISO/IEC14443 for contactless reader-card communications, and leverage the existing payments infrastructure which has supported payment cards for more than 40 years.

American Express, Discover Network, MasterCard and Visa have all agreed to use a common mark to communicate the acceptance of contactless payments based on the ISO/IEC 1443 standard. The symbol enables consumers and merchant staff to understand how and where to



present contactless cards and other devices, so they interact correctly.



Implementation of any contactless scheme requires consideration regarding compliance and certification with individual payment association specifications. Most VeriFone POS solutions can be enabled to accept the contactless payment features as currently defined by:

MasterCard/Maestro

PayPass is MasterCard International's contactless payments programme:

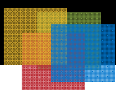
- *PayPass* MagStripe—designed for authorisation networks that support magnetic-stripe credit or debit applications
- *PayPass* M/Chip—designed for networks that support EMV Chip data

Visa

Visa Contactless is Visa's contactless payment programme which includes both magnetic-stripe and EMV applications.

American Express

ExpressPay is American Express' contactless payments programme, and contains differentiated specifications for EMV and non-EMV transactions.



Discover Card

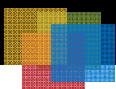
Currently operating a magnetic stripe contactless scheme only, called Zip.

As standards for contactless payment continue to evolve and change, VeriFone's contactless POS technology is designed to be updated as easily as other POS devices – quickly and simply.

Our Capability

VeriFone is the industry leader in bringing contactless payment solutions to the market, in both integrated and peripheral formats. In February 2007, ABI Research provided independent confirmation of our technology and thought leadership in contactless payment, naming VeriFone as one of the top two providers of contactless readers. ABI Research's evaluation criteria included product innovation and feature set, industry leadership and knowledge transfer, global capacity, as well as vertical market focus and product adoption.

Our leadership position was established a decade ago, when we provided integrated contactless readers to support the first Mobil SpeedPass deployments. In 2004 VeriFone undertook the world's first national rollout of a contactless payment programme in conjunction with MasterCard, installing 70,000 Omni 7000MPDs at McDonald's restaurants in the US. Since then, we've participated in a number of worldwide retail implementations including the Visa Wave



contactless payment national programmes in Malaysia and Taiwan, as well as the Warsaw City Card programme.

VeriFone's Contactless Solutions

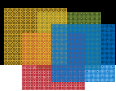
VeriFone's modular approach to enabling customer-facing systems with integrated contactless readers gives retailers a 'future proofed' solution that enables the easy upgrade of existing POS equipment to support full-scale contactless payments. We are the only company bringing you peace of mind and foresight into future trends. Our experience in payments has led us to an approach to contactless that better leverages your investment and quickens your time to market. Now, with a single application - or SingleCI - VeriFone's entire, unmatched portfolio can be accessed.

SingleCI (Single Contactless Interface) is a standard application protocol with development tools that allows acquirers and developers to leverage current investments and adapt to future needs - like NFC.

Contactless solutions for the POS currently include:

QX1000

VeriFone's QX1000 contactless peripheral is the plug-and-play solution the market demands. Merchants can confidently and affordably upgrade existing payment systems and begin accepting contactless payments instantly. The QX1000 features the latest contactless technology from



VeriFone, the recognized leader in contactless innovation and implementation. VeriFone's advanced contactless architecture future-proofs your investment with SingleCI (Single Contactless Interface), SoftSAM technology and side-by-side application architecture.

QX120

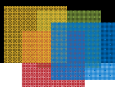
The QX120 is an external contactless card reader designed to meet Visa qVSDC MSD VisaWave, MasterCard PayPass MagStripe Maestro, American Express ExpressPay and Discover Zip specifications. This versatile reader can be easily connected to any stand-alone payment device or POS system for easy upgrade to provide state-of-the-art contactless functionality. This stylish and robust device can be freestanding on the countertop or mounted for maximum customer convenience. With a large landing zone and choice of wall mount or counter mount, the QX120 allows easy card or fob reading in any retail or service environment.

MX800 Series

VeriFone's MX870, MX850 and MX860 integrated customer-facing systems provide a modular design that can be equipped with integrated contactless modules, either at the factory or in the field. These solutions can be integrated directly with electronic cash registers and existing POS systems.

V^x 810 and V^x 810 DUET

VeriFone's V^x 810 PIN pad and V^x 810 DUET dual-user countertop solution both offer an



optional contactless module that will accept multiple contactless payment forms, from key fobs to cards to NFC-enabled mobile phones.

PINpad 1000SE

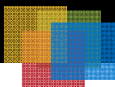
The PINpad 1000se combines two complete peripheral solutions into one powerful handheld product: built-in contactless technology for payments at the wave of a hand, and a reliable PIN pad for secure PIN-based transactions. VeriFone's advanced contactless architecture future-proofs your investment with a single contactless interface (SingleCI), SoftSAMs and side-by-side application architecture.

Unattended

VeriFone has several unattended multi-media solutions, including the OP 4100, that are perfect for kiosk and pay at the pump applications. Retailers such as supermarkets, petroleum stations, and convenience stores find its ATM-style key pad, hybrid card reader, and optional contactless reader easy to use. Plus, its large color display allows retailers to stream advertising messages to customers.

Make the Leap with VeriFone

Adding contactless payment to the POS offers significant advantages to retailers where speed and convenience are crucial to maintaining customer loyalty and maximising revenue during peak hours.



As consumer acceptance and demand for contactless payment grows, VeriFone is leading the way in supporting contactless payment at the POS. VeriFone's consumer-facing contactless readers can be easily integrated into any POS architecture as modular add-ons for existing EFTPoS devices, to provide a future proofed solution that supports full-scale contactless implementations.

For more information on VeriFone contactless solutions visit www.verifone.com/contactless

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