


THE TECHNOLOGY TO TAKE PAYMENTS TO THE NEXT LEVEL

Payment solutions to help you attract, engage and protect customers.

FOR MERCHANTS

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Topics

- 1 Introduction
- 2 EMV Chip Cards and Terminals
- 3 Contactless
- 4 Mobile Near-Field Communications (NFC)

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Customers today expect more.

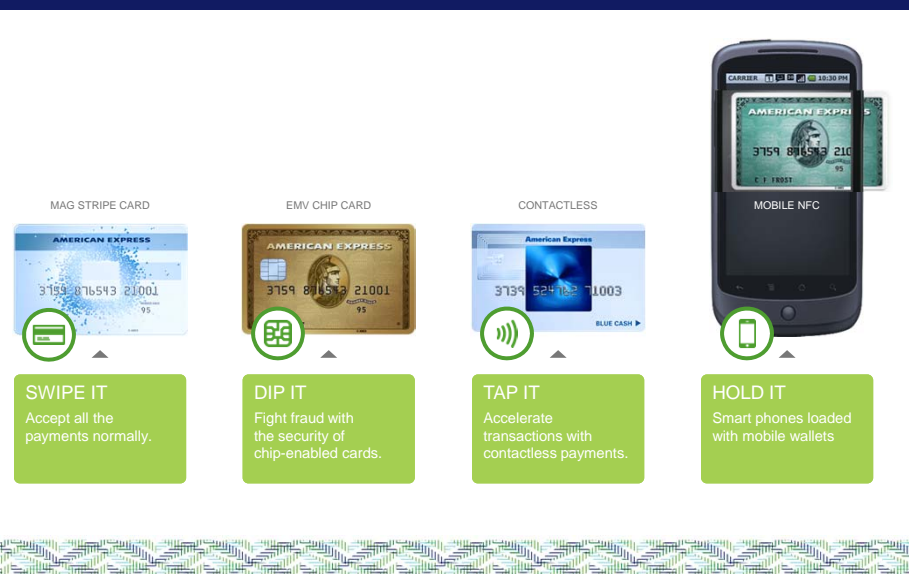
The payment technology revolution is raising customers' expectations for their ideal shopping experience.



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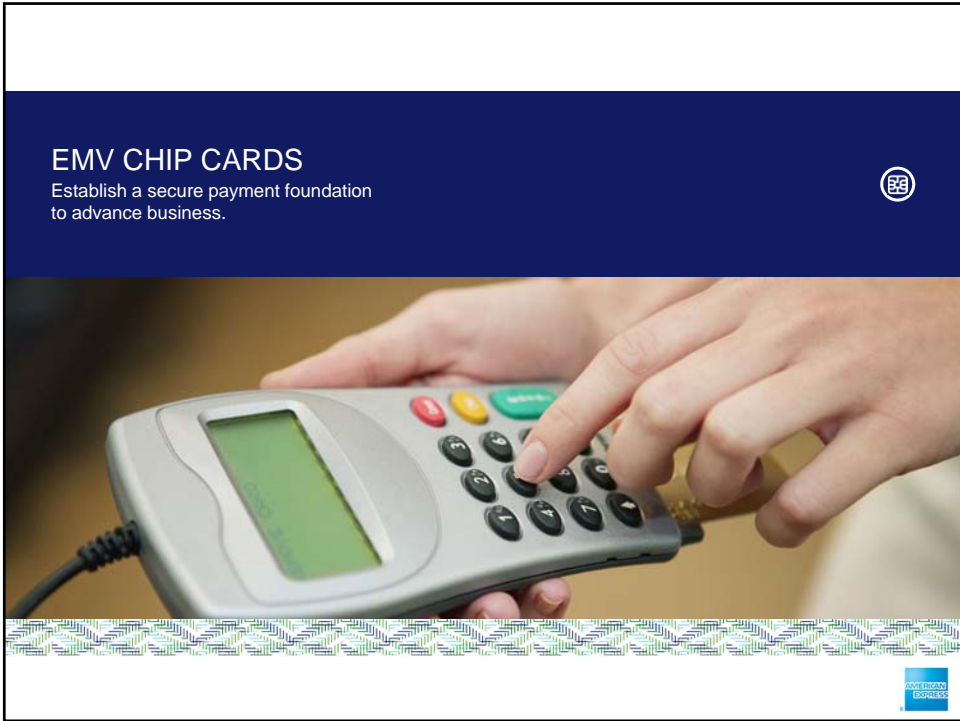


Payments have evolved to meet business and consumer needs.



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What is EMV?

EMV IS A SET OF STANDARDS IN THE PAYMENTS INDUSTRY FOR CHIP-BASED TRANSACTION PROCESSING IN WHICH THE CARD HAS AN EMBEDDED MICROPROCESSOR CHIP THAT EXCHANGES DATA WITH THE TERMINAL, DELIVERING A MORE SECURE TRANSACTION.*

▪ What EMV means for cards:

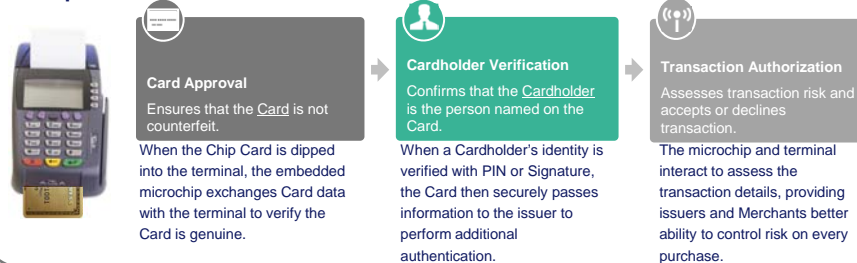
- Cards can be both Chip & Signature, requiring a signature, and Chip & PIN, requiring a PIN, to authorize the transaction.
- Can be used in a contact and contactless payment environment.

▪ What EMV means for terminals:

- Only relevant for card-present transactions.
- Require terminals that can process EMV chip-based contact, contactless and mobile NFC, as well as magnetic stripe transactions.



Example: Contact EMV “Smart Cards”



*Europay, MasterCard and Visa formed EMVCo to develop and maintain the open specifications for global interoperability between chip cards and terminals for credit and debit payment irrespective of card brand, terminal, etc. American Express and JCB joined the company at a later date.

EMV trumps mag stripe for security.



EMV CHIP CARDS

- Contain microprocessors which can encrypt and securely store information while supporting a range of applications
- Feature strong cryptographic functions that authenticate the card and Cardmember to ensure validity and authenticity
- Leverage smart chip technology that deters counterfeiting and prevents tampering

VS.

MAG STRIPE CARDS

- Encode Cardmember data on the magnetic stripe, similar to a tape recorder
- Lack data storage capabilities, microprocessor and dynamic data element
- Leave card and cardholder more at risk for cloning and counterfeiting

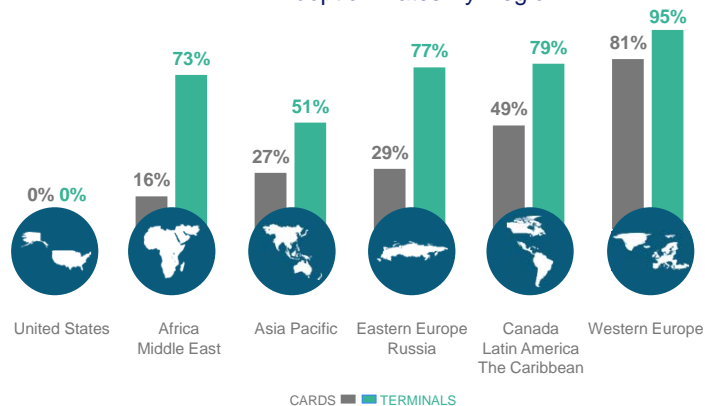
7 EMV/MAGNETIC STRIPE COMPARISON



Global Rollout of EMV

GLOBAL EMV DEPLOYMENT HAS ALREADY BEGUN, WITH US DEPLOYMENT LAGGING BEHIND.

EMV Adoption Rates By Region¹



EMV At A Glance

- >1.5 Billion EMV Cards in Circulation¹
- >21.5 Million EMV POS terminals¹
- >100% Deployment in the UK¹

¹ Worldwide EMV Deployment Q4 2012, EMVCo.com, 2012;

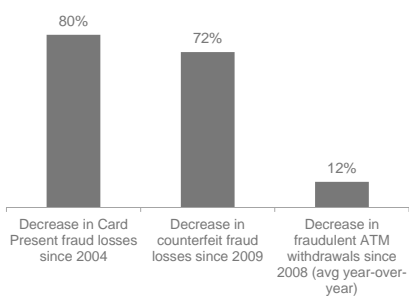
Global Results of Converting to EMV

SINCE ROLLING OUT EMV, GLOBAL MARKETS HAVE SEEN A REDUCTION IN MANY TYPES OF CREDIT CARD FRAUD.

With EMV – the UK

The EMV standard was rolled out in the UK as a mandatory requirement by 2005. Reductions in fraud were realized across all payment venues.

Decreases in various types of fraud in the UK since implementing EMV¹



Fraud Type	Decrease Percentage
Decrease in Card Present fraud losses since 2004	80%
Decrease in counterfeit fraud losses since 2009	72%
Decrease in fraudulent ATM withdrawals since 2008 (avg year-over-year)	12%

1. Fraud Facts Action UK 2012. 2. Federal Reserve Bank of Atlanta, Chip-and-PIN: Success and Challenges in Reducing Fraud, 2012.


Without EMV – the US

In the absence of EMV, the US has seen credit and charge card fraud levels increase over the last decade.

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US Rollout – Industry-Wide Roadmap

2011
2012
2013
2014
2015
2016
2017



	October 2011 (Visa) Roadmap announced		April 2013 Processors enabled		October 2013 PCI DSS reporting relief for enabled Merchants (V/MC only)		October 2015 Fraud Liability Shift (FLS) policy in effect (V/MC only)		October 2017 Fuel Merchant FLS in effect (V/MC only)
	June 2012 Roadmap announced		April 2013 Processors enabled		October 2013 PCI DSS reporting relief for enabled Merchants		October 2015 Fraud Liability Shift (FLS) policy in effect		October 2017 Fuel Merchant FLS in effect

Card Migration Status

- American Express proprietary issuers began migrating portfolios to EMV Cards in late 2012.
- Migration will continue across all proprietary portfolios through 2015.

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Key Steps to Convert

YOU MAY CONVERT TO AN EMV-CAPABLE POINT-OF-SALE TERMINAL BY FOLLOWING THE STEPS BELOW.

1

Define your EMV roadmap .

Considerations

- Who in your organization needs to be involved (Finance, Operations, Technologies)?
- What terminal types and channels do you use?
- When and where will you install EMV-capable terminals?
- What are your future payment plans (contactless, mobile)?

2

Determine upgrade requirements.

Contact Points

- Work with your terminal provider.
- If you connect directly with American Express, an American Express Payment Consultant can advise you.

3



Upgrade terminals and certify processing for all card products.


Potential EMV Upgrade Requirements

- Upgrade POS terminal to an EMV-capable terminal.
- Ensure the terminal provider certifies the EMV-capable terminal to process American Express chip card-based transactions.
- Train employees.

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CONTACTLESS
Build business momentum through faster, easier payments.



Many types of merchants can benefit from Contactless + Mobile.



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Contactless: Increase speed-of-pay and customer convenience.

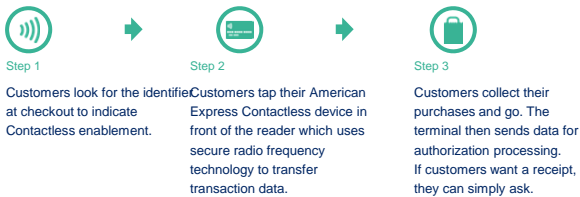
Upgrade to contactless terminals to offer customers a fast and easy way to pay.

What it is

Contactless chip payments use radio frequency technology to perform transactions, thereby removing the need for a physical connection between a payment card/device and terminal. Contactless chips have been utilized in various payment forms including cards, key fobs, watches and stickers.



How it works



14 CONTACTLESS PRODUCT OVERVIEW



Potential Benefits of Contactless Payments.

Capitalize on the security and business potential of Contactless through improved payments and a transformed customer experience.



PAYMENTS

- Improve efficiency at the point of sale (POS) to move customers faster with fewer resources
- Reduce cash handling and optimize operations
- Enhance payment security at the point of sale



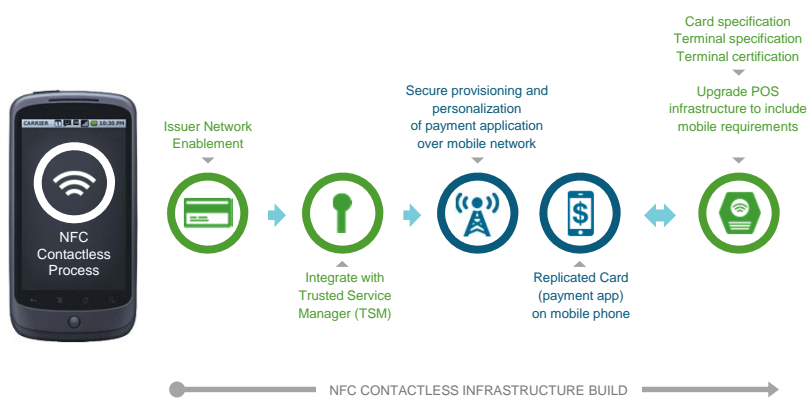
THE CUSTOMER EXPERIENCE

- Ensure a secure and protected shopping experience to gain customer trust and confidence
- Enable consumer-preferred forms of payment
- Create a more convenient, seamless and rewarding POS experience for both employees and customers
- Understand customer purchasing behavior to provide relevant follow-up offers and ensure customer satisfaction beyond the POS

15 CONTACTLESS BENEFITS



Enable the network infrastructure.



NOTE: Not all contactless cards are EMV-chip enabled.

16 CONTACTLESS & MOBILE ENABLEMENT



Take the next steps to enable Contactless.

- 1** Determine if accepting Contactless Cards is right for your business.
- 2** Work with terminal processors and acquirers to determine upgrade requirements.
- 3** Upgrade terminals and train employees.

EMV
CHIP CARD

CONTACT CONTACTLESS¹

17 CONTACTLESS ENABLEMENT 1) NOTE: Not all contactless cards are EMV-chip enabled.

MOBILE NEAR-FIELD COMMUNICATIONS (NFC)

Create richer, more meaningful customer interactions.



Digital and mobile are critical touch points today.

4,600,000,000

GLOBAL MOBILE PHONE USERS¹



19 MOBILE NFC PREVALENCE 1) "Forecast: Mobile Payment, Worldwide, 2009-2016," Gartner, May 2012. 2) "Global Mobile Transactions", Yankee Group Research, June 2011; 3) "The Mobile Movement, Understanding Smartphone Users", Google/IPSOS OTX MediaCT, April 2012. 4) "What is Foursquare" - About Foursquare.com, January 2013. 5) "Year-End Statistics" Twitter Press Release, December 2012.



Mobile commerce is an inevitable reality.

FUTURE

119,000,000,000

MOBILE SHOPPING EXPECTED TO REACH \$119B IN GLOBAL SPENDING BY 2015¹




20 MOBILE NFC PREVALENCE 1) "Mobile Commerce" study, by ABI Research, February 2012; 2) "Global Mobile Transactions", Yankee Group Research, June 2011; 3) "The Mobile Movement, Understanding Smartphone Users", Google/IPSOS OTX MediaCT, April 2012 4) "NFC Retail Marketing & Mobile Payments" Juniper Research, April 2011.



A new digital commerce platform for the future.


Upgrade to terminals that support Mobile NFC to create a new, 2-way relationship with customers.




What it is

Near-Field Communication (NFC) enables individuals to load their payment information onto their mobile phones for payment and other activities by tapping or holding their phone in front of an NFC-enabled device such as a register or terminal.


How it works




Step 1
Customers load their Card information onto an NFC-enabled phone, safely storing payment data within the phone's secure element.




Step 2
Customers may receive location-based offers on nearby deals to draw them into the store.



Step 3
At checkout, customers tap or hold their NFC-enabled phone in close proximity to the contactless reader which uses secure radio frequency technology to transfer transaction data.




Step 4
Customers collect their purchases and go. The terminal then sends data for authorization processing. If customers want a receipt, they can simply ask.


21 MOBILE NFC PRODUCT OVERVIEW


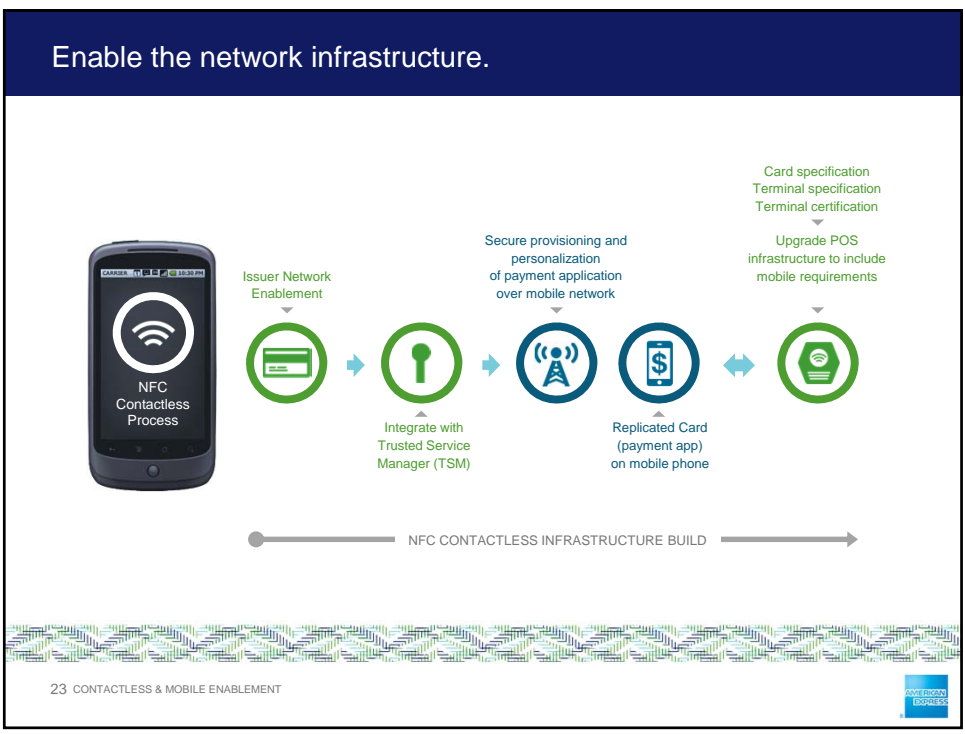
Replicate card on mobile phone.

Enabling a card payment on a mobile phone is considerably more complex than on a card due to the increased number of partners and industry standards involved.



	CARD	MOBILE DEVICE
Standard Specs	Standard card & communication specs/certification	Multiple bodies and multiple standards
Card App Specs	AXP standard specs/certification	AXP specs/certification must be adapted for multiple secure element/operating system combinations
Chip/Secure Element	Issuer-owned and controlled	Multiple possible owners/configurations
Personalization	AXP sub-contracted bureau	Multiple possible routes via various trusted third parties (TSM)

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Capitalize on the potential benefits of Mobile NFC.

Drawing on our experience in digital commerce innovation, capitalize on the potential benefits of Mobile NFC through improved payments, more effective marketing and a transformed customer experience.

PAYMENT

- May drive customers to spend more often
- Improve efficiency at the point of sale (POS) to move customers faster with fewer resources
- Reduce cash handling and optimize operations
- Enhance payment security at the point of sale

MARKETING OPPORTUNITIES




- Opportunity to access new channels and partner with leaders in the digital space
- May reduce traditional marketing expenses by leveraging mobile marketing and couponing
- Opportunity to bring customers back through data-driven loyalty programs

THE CUSTOMER EXPERIENCE

- Ensure a secure and protected shopping experience to gain customer trust and confidence
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24 MOBILE NFC BENEFITS

Identifying the Best-Fit Solution for You and your Customers.

BUSINESS NEEDS	EMV	CONTACTLESS*	MOBILE DEVICE*	MERCHANT READINESS
 Greater fraud prevention	x	x	x	<ul style="list-style-type: none"> • What types of terminals do you currently have? • When are you planning your next POS terminal update?
 Faster speed-of-pay	x	x	x	
Increased customer convenience	x	x	x	
Decreased operational costs	x	x	x	
Increased number of customers moved		x	x	
 Foundation for more sophisticated customer interactions	x	x	x	
Infrastructure enabled for this technology can support other emerging technologies	x	x	x	
2-way communications			x	
Enhanced targeted marketing offers			x	
Mobile loyalty and couponing			x	
Location-based outreach			x	
Limited budget and/or looking for pay-for-performance marketing			x	

25 *Uses EMV chip technology

