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Contactless EMV Payments: Merchant Opportunities Webinar

October 6, 2016

Smart Card Alliance

Smart Card Alliance Mission

To stimulate the understanding, adoption, use and widespread application of smart card technology through educational programs, market analysis, advocacy, and industry relations

Payments Council

Facilitating the adoption of chip-enabled payments and payment applications in the U.S.

Recent Contactless Payments Resources

- *Contactless EMV Payments: Benefits for Consumers, Merchants and Issuers*
- *EMV and NFC: Complementary Technologies Enabling Secure Contactless Payments*



Today's Webinar Topics and Speakers

- **Introductions**
 - Randy Vanderhoof, Smart Card Alliance
- **Why Contactless – Why Now**
 - Oliver Manahan, Infineon Technologies
- **Contactless Lessons Learned: Australia, UK and Canada**
 - Jose Correa, NXP Semiconductors
- **Contactless EMV Payments: Benefits for Merchants**
 - Allen Friedman, Ingenico Group
- **Merchant Implementation Considerations**
 - Michele Quinn, First Data
- **Q&A**
 - Randy Vanderhoof, Smart Card Alliance





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Why Contactless – Why Now

Oliver Manahan
Infineon Technologies

Then..... and Now

- Trials occurred ~ 2005
 - Some merchants, a few issuers, but not enough “critical mass” to drive adoption or modify behaviour
 - No clear benefit to participants
 - Swipe time = tap time
 - Brand rules not requiring cardholder verification (CVM) for some swiped transactions further reduced benefit
 - POS readers were “add-ons” – merchants had to do integration, and in some instances counter space was taken
 - Was based on Magnetic Stripe Data (MSD)
-
- Contactless is now based on EMV standards
 - Globally interoperable
 - Highest standard of Security
 - Contactless readers are integrated in standard POS



Consumers

- People prefer “tap” versus “dip”
 - Easier/more intuitive transaction
 - Faster throughput
- Other markets show:
 - Increase usage and frequency
 - Will seek out issuers of dual-interface cards
- No “forgotten card” in EMV reader
- Opens additional use cases – e.g., Transit

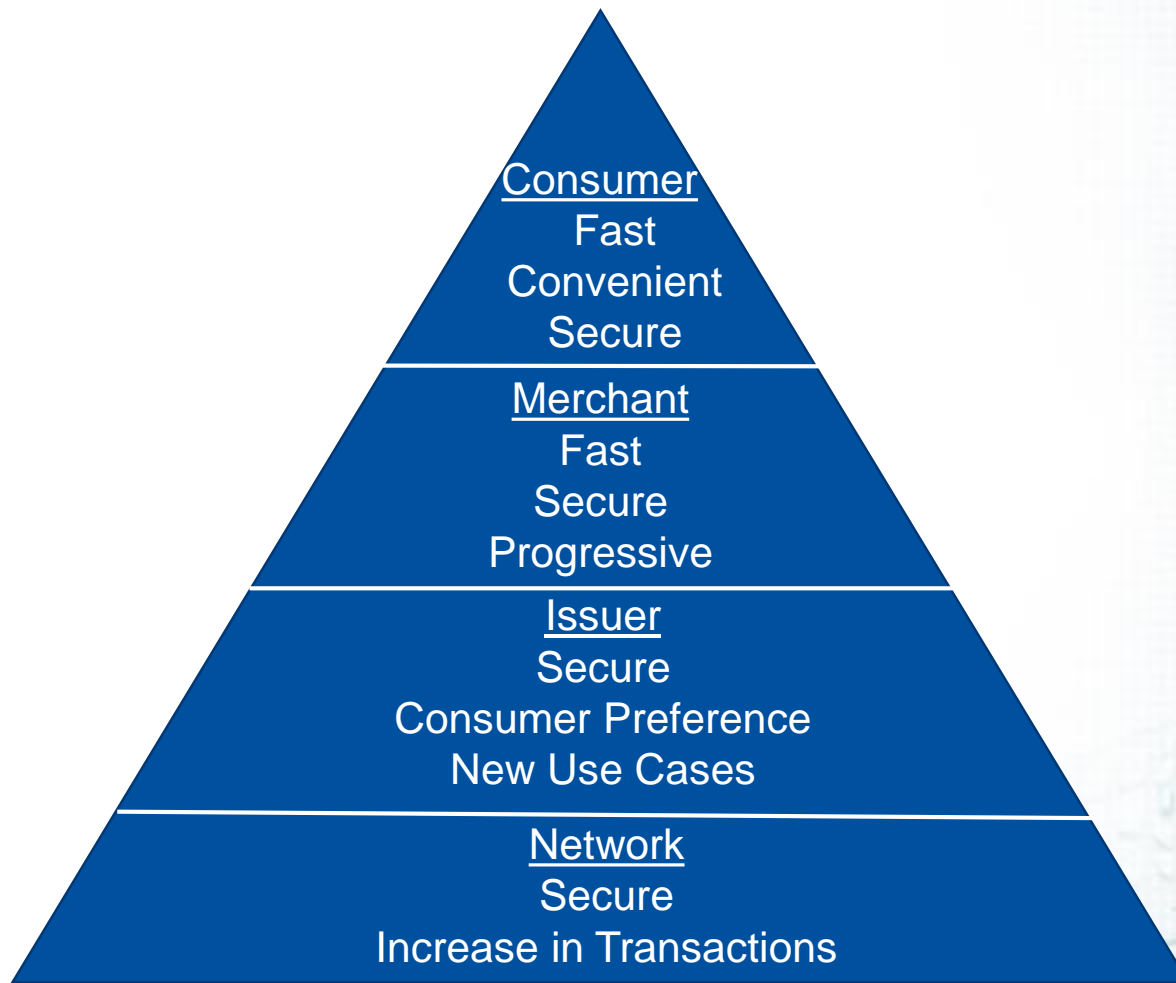


Merchants

- EMV = ↑ Transaction time (“quick” helps, but still not as fast as contactless)
- Contactless = ↓ Transaction time (faster throughput)
- With the EMV migration, most new POS devices have contactless capability built-in... no longer a decision to buy a separate unit, but whether to enable
- Enabling for contactless cards = enabling for any contactless device...
 - Cards
 - Mobile
 - Wearables etc.



Summary





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Contactless Lessons Learned: Australia, UK and Canada

Jose Correa
NXP Semiconductors

Australia

- **Contactless adoption**
 - **\$3B AUD** annual contactless spend¹
 - Over **60%** of all Debit transactions¹
 - Over **50%** of all population has used a contactless card²
- **Issuance**
 - Two thirds of population own a contactless card³
- **Usage**
 - 60% use card once a week, up from 43% in 2014²

1 - "Australia Making Waves in the World of Contactless Payments," Let's Talk Payments, August 9, 2014, <https://letstalkpayments.com/australia-making-waves-world-contactless-payments/>

2- Rian Boden, "Australia leads the way for contactless ownership and usage," NFC World+, May 13, 2015, <http://www.nfcworld.com/2015/05/13/335191/australia-leads-the-way-for-contactless-ownership-and-usage/>.

3.- BPAY Banter Payment News and Insights, "Why do Australians lead the way in contactless payments?", Feb. 25, 2016, <http://www.bpaybanter.com.au/news-views/why-do-australians-lead-the-way-in-contactless-pay>.



Australia

- **Acceptance**
 - Major merchants small business have installed contactless terminals
 - Coles reports **70%** of all transactions are now contactless⁴
- **Preference**
 - 66% prefer contactless over contact⁵
 - 64% prefer contactless over cash when transaction < \$100 AUD⁵

⁴ -The Evolution of Cash: An Investigative Study, Australian Payments Clearing Association, July 2014, <http://www.apca.com.au/docs/policy-debate/evolution-of-cash.pdf>

⁵ - MasterCard press release, "Survey Reveals: Cash No Longer King for Australian Shoppers," Dec. 1, 2015, <http://newsroom.mastercard.com/asia-pacific/press-releases/survey-reveals-cash-no-longer-king-for-australian-shoppers/>



- **Contactless adoption**
 - **£7.75B** annual contactless spend⁶
 - Over **20%** of all spend in the UK⁷
 - Number of contactless transactions represent over **20%** of the total⁸
- **Issuance**
 - Over **50%** of all credit and debit cards are contactless⁶

6-UK Cards Association, "Annual contactless spending trebles to £7.75 billion," December 2015, <http://www.theukcardsassociation.org.uk/news/CESDec2015.asp>.

7- Once it was touch and go, now contactless is a new-wave revolution

<https://www.theguardian.com/money/2016/sep/10/contactless-cards-wave-pay-oyster-london-use>

8- Contactless Statistics

http://www.theukcardsassociation.org.uk/contactless_contactless_statistics/



- **Acceptance**
 - Over **1M** transactions per day at TfL⁹
 - Over 460k contactless capable terminals¹⁰
- **Preference**
 - Improved user satisfaction:
 - Transaction speed
 - Convenience
 - Safety
 - Customers report **50%** faster transactions compared to traditional chip and PIN¹¹

9 - Hilary Osborne, "Contactless payments used for 1bn UK purchases in 2015," The Guardian, Feb. 26, 2016, <http://www.theguardian.com/money/2016/feb/26/contactless-cards-purchases-spending>.

10 - VISA, "Visa Europe announces record revenues as the UK goes contactless," <https://www.visa.co.uk/newsroom/visa-europe-announces-record-revenues-as-the-uk-goes-contactless-1300858?returnUrl=/newsroom/index#sthash.7o7ZNXcV.dpuf>.

11- NFC World "UK consumers save years using contactless" <http://www.nfcworld.com/2016/09/07/347093/uk-consumers-save-years-using-contactless/>



Canada

- **Contactless adoption**
 - Improved adoption compared to Magstripe Data based contactless implementations
- **Issuance**
 - By late 2014 over 70% credit and 40% debit cards were dual interface¹²
- **Usage**
 - Over **30%** of all transactions are contactless based
 - Usage saw linear increase as limits moved from \$50 to \$100 CAD¹³

¹² - Canadian Bankers Association, "Payments Security White Paper," July 2015, <http://www.cba.ca/contents/files/submissions/misc-2015-paymentssecurity-whitepaper-en.pdf>.

¹³ - Jamie Sturgeon, "Tap and go credit card purchases are surging in Canada," Global News, Oct. 29, 2015, <http://globalnews.ca/news/2306518/tap-and-go-credit-card-purchases-are-surging-in-canada/>.



Canada

- **Acceptance**
 - Over **80%** of merchant POS devices from the following categories are contactless enabled:
 - Grocery Stores
 - Quick Service Restaurants
 - Pharmacies
 - Gas Stations
 - Over **30%** of all POS devices nationally ¹⁴

14 - Canadian credit card, debit card and debt statistics, CreditCard.com Canada, <http://canada.creditcards.com/credit-card-news/canada-credit-card-debit-card-stats-international-1276.php>





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Contactless EMV Payments: Benefits for Merchants

Allen Friedman, Ingenico

Contactless EMV Merchant Benefits: Multiple Form Factors

As merchants implement EMV Contactless, this allows them to accept contactless payments for cards, NFC-enabled mobile phones and wearables.



Contactless EMV Merchant Benefits

Better Consumer Experience

- For some merchants, customers will simply perceive that checkout is faster, as contactless is the fastest way to pay using EMV chip technology
- No need to leave the card in the POS device for the duration of the transaction
- Eliminates early card removal and card abandonment issues
- New initiatives such as Quick Chip also offers these features, but contactless is still a bit faster for the consumer.

Contactless EMV Merchant Benefits

Enhancements

- Possible to tie loyalty programs to mobile wallets to provide personalized communications, promotional opportunities, and transaction histories.
- Perception of increased security when using mobile applications such as Apple Pay and Android Pay, particularly when biometrics (i.e., fingerprints) are utilized.
- Compared to contact EMV, performing a contactless transaction is more intuitive and requires minimal participation by a sales associate.



Contactless EMV Merchant Benefits

Absence of Contactless Transaction Limits

- The U.S. does not enforce a limit on contactless transaction amounts that would force card insertion.
 - Most merchants may accept small ticket transactions without a PIN or signature (No CVM) on both contactless and contact transactions
 - Especially beneficial when accepting mobile wallet or wearable based payments when the consumer may not be carrying the plastic card.
- Some mobile devices use the device's PIN or fingerprint to authenticate the cardholders identity.
 - For transactions exceeding the No CVM amount, this satisfies the PIN/signature requirement. Known as:
 - On Device Cardholder Verification Method (ODCVM), or
 - Consumer Device Cardholder Verification Method (CDCVM)



Contactless EMV Merchant Benefits

Security

- Contactless EMV uses the same dynamic data security as EMV contact
- Mobile wallets utilize EMVCo Tokenization, removing the actual account number from the merchant's system.
 - These tokens are device and channel specific, preventing them from being used in fraudulent transactions.
- Dual-interface contactless cards may also support offline data authentication (ODA)
 - Provides an additional layer of security against counterfeiting.
 - Can be useful in preventing fraud when an ODA supporting merchant is unable to go online.





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Merchant Implementation Considerations

Michele Quinn
First Data

Contactless Evolution

Early Contactless

- Contactless infrastructure not in place
 - Limited merchants with contactless acceptance
- MSD Contactless
 - Did not include EMV chip data (cryptogram)

EMV Contact

- Merchants prepared for the 10/1/15 liability shift
- Hardware AND software needed to adopt EMV technology
- Adding contactless later requires another certification

EMV Contactless

- Not all solutions offered are certified for EMV contactless
- Merchants certifying for contact also certify for contactless (when solution supports)
 - Future proofing their business



Merchant Implementation Considerations

Conduct Due Diligence

- Merchants need to make sure they are ready for certification

Ensure Device Supports Contactless

- Verify that the device supports contactless transactions



EMV Contactless Adoption

Infrastructure In
Place

Certified EMV
Contact/Contactless
Solutions

Global
Interoperability

Adoption driven by consumer use of contactless form factors



Payment Account Reference (PAR)

EMV Payment Tokenization

- Contactless payments with NFC enabled devices (mobile/wearables) use tokenization
- Presents a challenge associating the token with an underlying PAN

PAR

- Allows tracking across EMV tokens affiliated with an underlying PAN

One PAR Per PAN

- A payment account represented by one PAN will always have one PAR (regardless of changes to the PAN)



Q&A





Randy Vanderhoof, Smart Card Alliance
rvanderhoof@smartcardalliance.org

Oliver Manahan, Infineon Technologies
manahan.external@infineon.com

Jose Correa, NXP Semiconductors
jose.correa@nxp.com

Allen Friedman, Ingenico Group
allen.friedman@ingenico.com

Michele Quinn, First Data
michele.quinn@firstdata.com

191 Clarksville Road
Princeton Junction, New Jersey 08550
WWW.SMARTCARDALLIANCE.ORG

