



Smart Card
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Contactless EMV Payments: Issuer Opportunities Webinar

November 9, 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 Issuers**
 - Nick Pisarev, Giesecke & Devrient
- **Issuer Implementation Considerations**
 - Jamie Topolski, Fiserv
- **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)
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- 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 DI cards
- No “forgotten card” in EMV reader
- Opens additional use cases – e.g., Transit



Issuers

- EMV = ↑ Security
- EMV = ↑ Transaction time
- Contactless = EMV Security
- Contactless = ↓ Transaction time
- Other markets have shown consumers use dual-interface (DI) cards more frequently, particularly for lower value transactions = tender shift from cash to electronic
- Vast majority of face-to-face transactions are still card-based; DI helps shift consumer behavior to “tap”, thus enabling shift to mobile

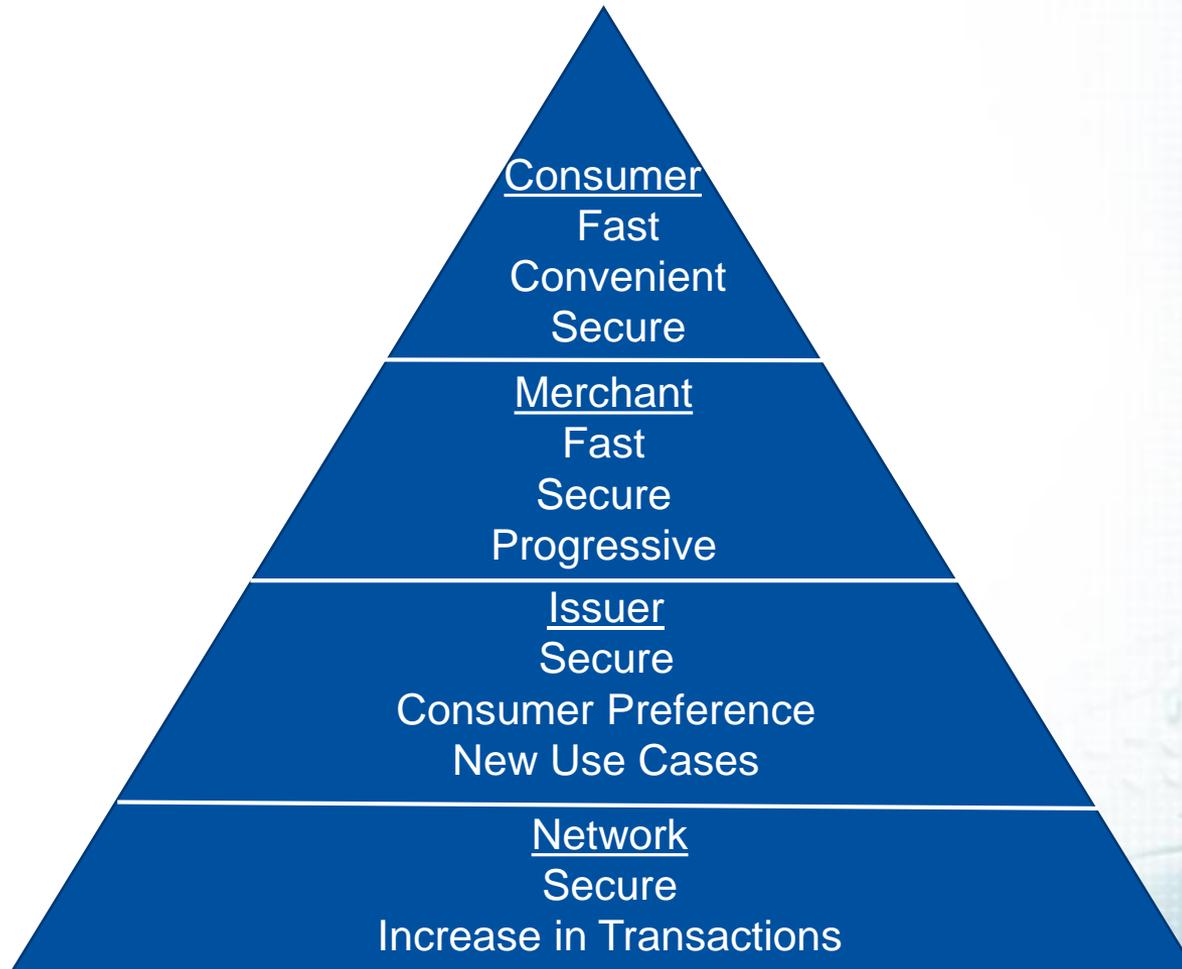


Merchants

- 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/>



UK

- **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/



UK

- **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 Issuers

Nick Pisarev, Giesecke & Devrient

EMV Contactless - Issuer Benefits



- Keep card in hand at all time
- Secure speedy transaction



- Displace cash transactions
- Top of wallet card through frequency of use



- Better fraud detection through frequency of use
- Tap to dip fallback guarantees liability compliance



- Same personalization equipment
- EMV technology same as contact



- Issue globally accepted DI cards
- Leverage globally deployed DI card technology



Issuers – Additional Benefits

Contactless interface presents opportunities to use the card in many different ways

- Interaction with a mobile device
 - Secure mobile payment enrollment
 - Mobile banking access and/or high risk mobile transaction authentication
- Have additional application(s) for authentication and/or access control – corporate environment, university campus etc.



Issuers Q&A: Why Issuing Dual Interface Card

Q: I've tried it before, it didn't work, why try again?

A: Benefits vs. complexity ratio is now much different.

Q: If the consumer wants contactless, can't they just use mobile?

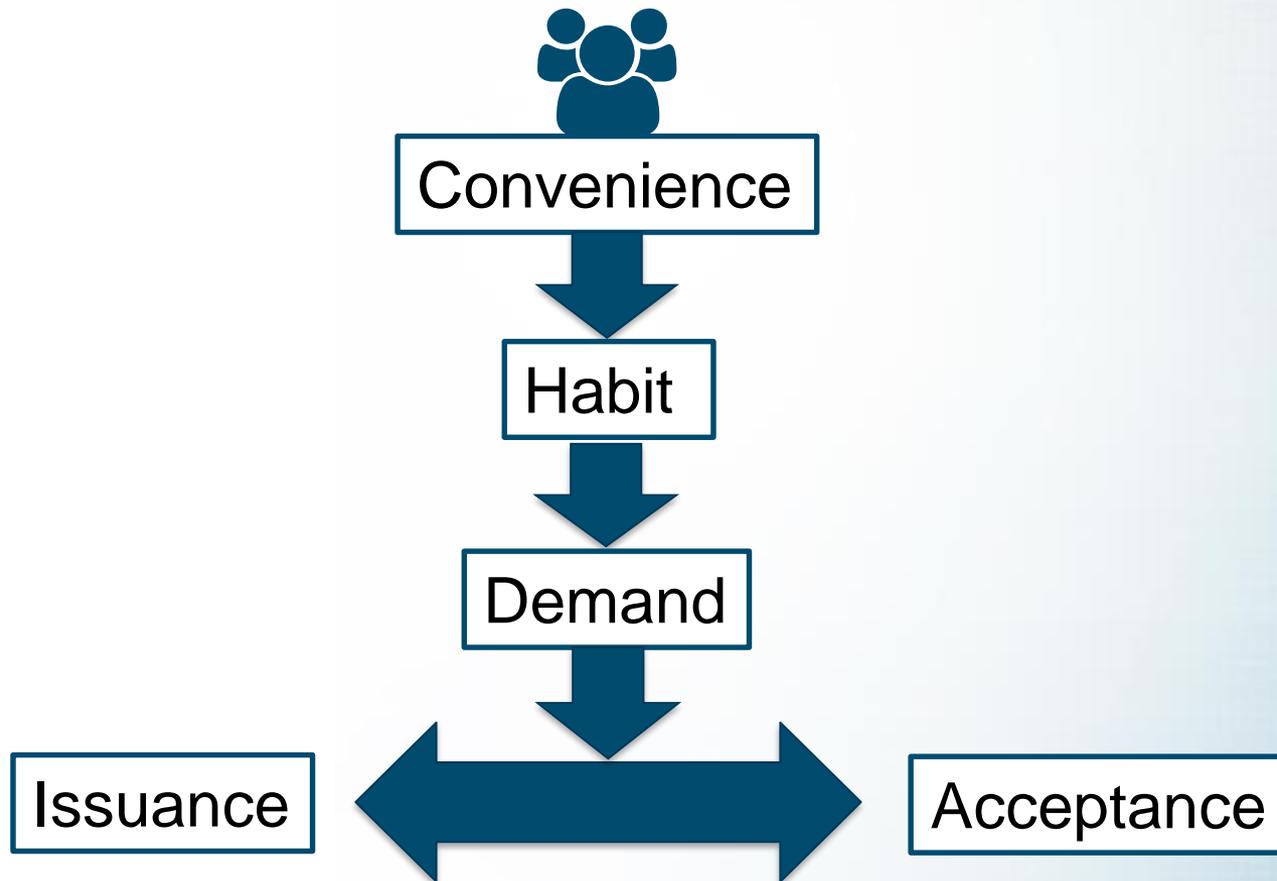
A: Mobile payment does not represent a critical mass of payment devices. Consumer habits take time to change.

Q: There is no acceptance, so why issue cards? (The Chicken and Egg problem)

A: There's growing merchant contactless acceptance with EMV migration. Plus, contactless offers benefits in segments that drive frequency of use: transit / grocery / convenience store / coffee / fast food restaurants.



Solving the Chicken and Egg problem





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Issuer Implementation Considerations

Jamie Topolski
Fiserv

Issuer Considerations

NFC-enabled Mobile Device vs. Dual-interface Card

- There are different costs and benefits for both options
 - Issuance costs (provisioning the card to the mobile device vs. incremental cost of dual-interface cards)
 - Ongoing usage costs (some mobile wallets charge a percent of every transaction)
- “Interface Redundancy” on dual-interface cards
- Visibility / branding
- Integrated functionality (coupons, loyalty) via mobile device



Segmentation Strategy

- Credit, debit, or both
- Entire card portfolio or subset (e.g. active cardholders, high net-worth, etc.)
- Cost per card vs. cost of multiple card inventories



Issuer Considerations, continued

Dual-Interface Profiles

- Refer to profile recommendations from Payment Brands
 - MSD Contactless, in addition to EMV
 - Offline Data Authentication
 - Offline Transactions
 - U.S. Common Debit AID



Authorization Processing and Risk Management

- Support for additional types of cryptograms
 - Dynamic CVV / CVC; ARQC / TC

Cardholder and Employee Education

- Instruct cardholders about the new option for contactless usage and address any security concerns
- Employees will need to know how to identify the interface for each transaction



Q&A





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