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Contactless Payments: Issuer Benefits and Implementation Considerations

Secure Technology Alliance Payments Council

May 31, 2018

Introductions & Agenda



- **Introductions**

- Cathy Medich, Secure Technology Alliance



- **Why Contactless? Why Now?**

- Oliver Manahan, Infineon Technologies



- **Status of International Implementations**

- Jose Correa, NXP Semiconductors



- **Contactless Payments Benefits for Issuers**

- TJ Considine, Visa



- **Issuer Contactless Implementation Considerations**

- Jamie Topolski, Fiserv

Who We Are

The Secure Technology Alliance is a not-for-profit, multi-industry association working to stimulate the understanding, adoption and widespread application of secure solutions.

We provide, in a collaborative, member-driven environment, education and information on how smart cards, embedded chip technology, and related hardware and software can be adopted across all markets in the United States.

What We Do

Bring together stakeholders to effectively collaborate on promoting secure solutions technology and addressing industry challenges

Publish white papers, webinars, workshops, newsletters, position papers and web content

Create conferences and events that focus on specific markets and technology

Offer education programs, training and industry certifications

Provide networking opportunities for professionals to share ideas and knowledge

Produce strong industry communications through public relations, web resources and social media



Our Focus

Access Control
Authentication
Healthcare
Identity Management
Internet of Things
Mobile
Payments
Transportation

Member Benefits

Certification
Council Participation
Education
Industry Outreach
Networking
Technology Trends

Payments Council

... focuses on securing payments and payment applications in the U.S. through industry dialogue, commentary on standards and specifications, technical guidance, and educational programs about the means of improving the security of the payments infrastructure and enhancing the payments experience

SELECTED COUNCIL RESOURCES

- [Contactless Payments: Proposed Implementation Recommendations](#)
- [Contactless EMV Payments: Benefits for Consumers, Merchants and Issuers](#)
- [Contactless Payments in the U.S.: Guides for Merchants and Issuers](#)
- [Contactless Payments Security Q&A](#)
- [EMVCo Payment Account Reference \(PAR\): A Primer](#)
- [Implementation Considerations for Contactless Payment-Enabled Wearables](#)
- [IoT and Payments: Current Market Landscape](#)
- [Blockchain and Smart Card Technology](#)



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Why Contactless? Why Now?

Oliver Manahan – Infineon Technologies

Poll Question

What payments industry stakeholder category best describes your organization?

- a. Issuer
- b. Merchant
- c. Acquirer/Processor
- d. Payment Network
- e. Other

What's Changed since the mid-2000's?

Circa 2005:

- Trials occurred ~ 2005
 - Some merchants, a few issuers, but not enough ubiquity to drive adoption/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
- Contactless was based on Magnetic Stripe Data (MSD)

What's New

2018:

- Contactless is now based on EMV standards
 - Globally interoperable
 - High standard of security
- Contactless readers are integrated in standard POS
- Merchant enablement is leading issuance for contactless
- New form factors such as wearables improve consumer affection
- Brands have been requiring contactless adoption in most other markets

Consumers

People prefer “tap” versus “dip”

- Easier/more intuitive transaction
- Faster throughput
- “Cool” factor

Other markets show:

- Increase usage and frequency
- Consumers will seek out issuers of dual interface (DI) cards

No “forgotten card” in EMV reader (or annoying beep)

Consistent experience across devices – contactless cards, wearables and mobile devices

Foolproof transactions (three interfaces)

Opens additional use cases – e.g., Transit



Issuers

EMV = Improved security, but an increase in transaction time

Contactless = EMV security

Contactless = Decreased transaction time

Other markets have shown consumers use DI cards more frequently, particularly for lower value transactions = tender shift from cash to electronic – **therefore a benefit to all stakeholders processing electronic transactions**

Vast majority of face-to-face transactions are still card-based; DI cards help shift consumer behavior to “tap”, thus enabling shift to mobile



Merchants

EMV = typically led to an increase in transaction time (“quick” helps, but still not as fast as contactless)

Contactless = reduced transaction time, hence faster throughput
Seen as “cool” by early adopters and tech savvy

With the EMV migration, most new POS devices have contactless capability built-in... it’s 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.



Statistics

Merchant:

- 46% of transactions occur at contactless enabled merchants
- 70% of merchant locations are capable of contactless transactions
- >95% of new terminal shipped are contactless capable
- 10% increase in active unique merchant in the U.S year-on-year

Issuer:

- 5% of cards are contactless today (7% credit, 1% debit)
- 80% growth in contactless transactions year-on-year
- \$22.89 average ticket size





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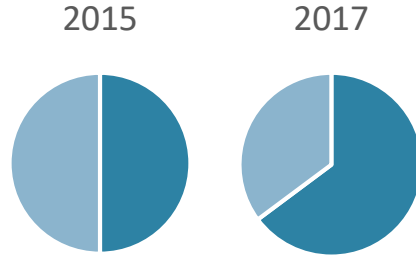
Status of International implementations

Jose Correa, NXP Semiconductors

Contactless Implementations around the World Today

UK, Australia, Canada remain global leaders on contactless adoption with contactless

- Issuance jumped from 50% to 65%



- Two thirds of population now tap to pay

<https://www.visa.co.uk/newsroom/the-contactless-revolution-ten-years-on-two-thirds-of-brits-now-tap-to-pay-2130476>

- Church of England rolling out contactless donations

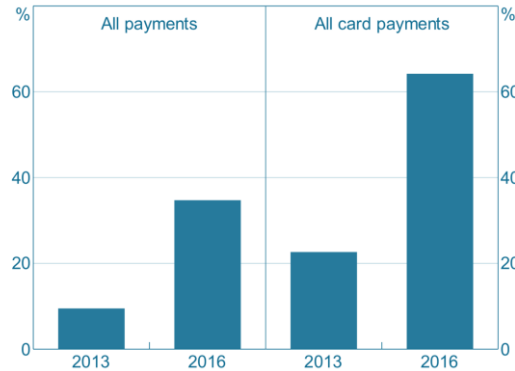
<https://www.theguardian.com/world/2018/mar/20/digital-conversion-church-england-cashless-donations-contactless>



Contactless Implementations around the World Today

UK, Australia, Canada remain global leaders on contactless adoption with contactless

- Contactless share of POS payments



- Contactless card payments are leading payment method

<http://www.rba.gov.au/publications/rdp/2017/pdf/rdp2017-04.pdf>

Contactless Implementations around the World Today

UK, Australia, Canada remain global leaders on contactless adoption with contactless

- Contactless share of transactions

<https://insights.moneris.com/spending-reports/the-2017-monerismetrics-spending-summary>

30%  38.9%



- Vancouver TransLink launches Tap to Pay

<https://www.translink.ca/Fares-and-Passes/Tap-to-Pay.aspx>

- Canadians embrace contactless payments over other platforms

<https://www.digitaltransactions.net/canadians-embrace-contactless-payments-but-are-cautious-about-other-new-payment-forms/>

Contactless Implementations around the World Today

But they are no longer alone driving adoption

- **Singapore**

- SmartNation - country wide efforts to displace cash with contactless payments

<https://www.smartnation.sg/initiatives/Services/towards-a-smart-cashless-society-with-contactless-payment>

- **Czech Republic**

- Over 70% of all transactions are contactless
- Increased usage of open payments on public transportation

<http://www.radio.cz/en/section/marketplace/contactless-czechs-spark-arguments-over-dash-from-cash>

<https://embeddedsecuritynews.com/2017/06/czech-republic-becoming-a-world-leader-in-contactless-payment-for-public-transportation/>

- **Poland**

- Over 90% of terminals accept contactless transactions

<https://www.cashless.pl/in-english/3562-almost-94-percent-of-terminals-on-the-polish-market-accept-contactless-payments>

- **Spain**

- Increased card adoption (10%YoY and >75M cards in circulation)
- Over 30% of all transactions by 2017 are contactless

<https://www.europeanpaymentscouncil.eu/news-insights/insight/spanish-payment-landscape-innovation-gains-tradition>

- **Chile**

- Implementing EMV contactless payments on public transportation

<http://www.paymentmedia.com/news-2490-chile-los-pagos-sin-contacto-emv-llegan-al-transporte-puacutublico.html>

Updates on Contactless Guidelines

Payment networks are driving contactless issuance and acceptance around the world

- New card issuance in Europe, Latin America and Asia moving to contactless/dual-interface as early as 2019
- New terminals starting 2018 and all terminals as early as 2020 must accept contactless transactions



Poll Question

What are your plans to issue contactless or dual-interface cards?

- a. We plan to issue cards in one year or less
- b. We plan to issue cards in one to two years
- c. We plan to issue cards in two to three years
- d. We have no plans to issue contactless/dual-interface cards
- e. Not applicable - we are not an issuer



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Contactless Payments: Issuer Benefits

TJ Considine, Visa

Contactless Chip Cards Benefit Issuers & Cardholders



Competitive differentiation

Issuing contactless cards can demonstrate payments leadership and innovation

As contactless sees increasing global momentum, contactless cards offer consistency around the world

Contactless cards can help issuers achieve top-of-wallet status



Strong contactless business case

Contactless cards can be effective in converting cash to card-based payments

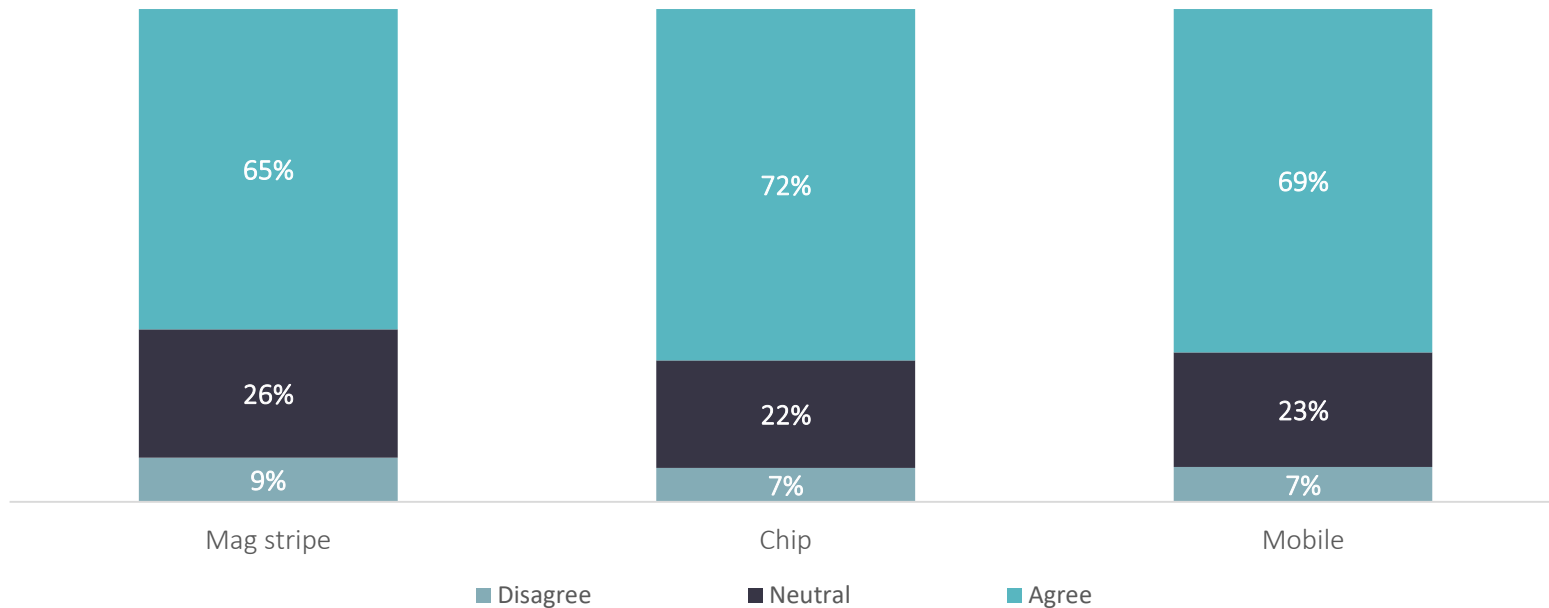
Cash is used for one-third of transactions in the U.S., representing a \$2T opportunity¹

1. Nilson Report / Euromonitor Data, Q1 17

Consumer Preference

% Consumers surveyed who prefer contactless cards

(Consumers who own a contactless card)¹



40% who own a contactless card use it wherever they can

1. AYTM Survey on Contactless, commissioned by Visa and conducted online among 2,000 U.S. consumers in March 2017

Cash Displacement



Between 2013 and 2016, Australia experienced a 16% decline in cash usage¹



The UK saw cash's share of retail spend drop from 32% to 23% from 2011-2015²



Canada saw one-third fewer cash transactions in 2015 than in 2008³

1. Reserve Bank of Australia, 2017

2. British Retail Consortium Payments Survey, 2015.

3. Canadian Payment Methods and Trends Report, November 2016

Poll Question

What do you see are the key benefits of issuing contactless or dual-interface cards?

- a. Top of wallet preference
- b. Conversion of cash transactions to card-based payment
- c. Competitive differentiation
- d. Improved security
- e. Other



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Issuer Contactless Implementation Considerations

Jamie Topolski, Fiserv

Issuer Considerations

Incremental Issuer Requirements

- Each payment brand has requirements and recommendations for contactless issuance
- Support Offline Card Authentication Method (CAM)
 - Requires additional type of keys / cryptography
 - Facilitates new use cases (e.g., transit)
 - Allows the POS terminal to validate the card is “genuine” before an authorization response is received
 - Differs from offline authorization
- Support legacy “mag stripe data” (MSD) contactless
 - Many older POS terminals only support MSD contactless
- Review the contactless personalization profiles
- Consider including RF shielding or other options when mailing cards
 - Prevents card from being read while in the envelope



Issuer Considerations, continued

Ensure contactless support by all partners

- Processor(s)
 - Ensure support for contactless transactions including MSD
 - Stand-in processing
- Card manufacturer
 - Cards with a dual-interface chip and embedded antenna
 - Plan for changes to card design (e.g., include the Contactless Indicator)
- Personalization bureau
 - Support contactless profiles
 - Generate the keys needed for offline card authentication method
- Instant issuance vendor
 - Equipment and/or software upgrades
 - Generate and/or support the keys needed for offline data authentication



Issuer Considerations, continued

Timing and Segmentation Strategy

- Lack of a “deadline” provides flexibility for timing of rollout compared to initial rollout of contact EMV cards
- Transition to contactless can coincide with natural reissuance cycle of EMV cards
 - Leverage other off-cycle events (branding changes, M&A)
- Timing and rollout strategy can differ for credit and debit portfolios
- Portfolios can be segmented
 - Geography (e.g., proximity to public transit)
 - Card usage / engagement (e.g., “active” usage, international travelers, etc.)
 - High net worth
 - Consider cost per card vs. cost of multiple card inventories

Communication and Education

Cardholder and Employee Education

- Revise the card carrier and other channels to include new information about the contactless capabilities of the card
 - How to complete a contactless transaction
 - Where contactless transactions are supported
 - Continued emphasis on security and safety
- Train employees about dual interface cards and transactions
 - Employees may need to know how to identify the interface for each transaction
 - Prepare for cardholder questions and misconceptions about security (script for telephone support staff)

Poll Question

What challenges do you see with issuing contactless or dual-interface cards?

- a. Acceptance infrastructure
- b. Business case
- c. Consumer education
- d. Other
- e. None – I don't see a challenge



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Q&A



Contactless Payments Resources

- Secure Technology Alliance Knowledge Center - <https://www.securetechalliance.org/knowledge-center/>
 - Contactless Payments: Proposed Implementation Recommendations
 - Contactless EMV Payments: Benefits for Consumers, Merchants and Issuers
 - Contactless Payments in the U.S.: Guides for Merchants and Issuers
 - Contactless Payments Security Q&A
- [U.S. Payments Forum Mobile & Contactless Working Committee](#)
 - Contactless Resources: Implementation Considerations and Clarifications

Speaker Contact Information

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- Jamie Topolski, Fiserv - Jamie.Topolski@fiserv.com



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Appendix

Updates on Contactless Guidelines

American Express

- Effective Oct. 12, 2018, acquirers located in the Latin America; Europe, Middle East and Africa (EMEA); and Japan, Asia-Pacific and Australia (JAPA) regions, must ensure that all new payment terminals are contactless- and EMV chip-enabled.
- Effective April 12, 2019, all issuers located in the Latin America, EMEA and JAPA regions must ensure all new and replacement cards they issue are contactless- and EMV chip-enabled.
- Effective April 14, 2023, acquirers located in Latin America and EMEA must ensure all existing payment terminals are contactless- and EMV chip-enabled.

Additional information about these policies are available to acquirers and issuers at on the American Express Knowledge Base (<https://network.americanexpress.com/globalnetwork>)

Updates on Contactless Guidelines

Discover

- By January 1, 2020, all terminals in EMEA must accept Contactless D-PAS transactions
- By January 1, 2020, all terminals in other regions that accept Contactless EMV must support Contactless D-PAS

Updates on Contactless Guidelines

Mastercard

- After October 2018, all new acceptance terminals in Europe, the Middle East, Africa, Latin America and Asia Pacific will have EMV chip and contactless enabled
- After April 2019, all new cards issued in in Europe, the Middle East, Africa, Latin America and Asia Pacific will have EMV chip and contactless technology; and
- By April 2023, all merchant terminals in in Europe, the Middle East, Africa, and Latin America will be EMV chip and contactless enabled.

<https://newsroom.mastercard.com/asia-pacific/press-releases/betting-on-contactless-mastercard-pushes-chips-to-center-of-table/>

Updates on Contactless Guidelines

Visa

- In Asia Pacific and Latin America, after October 2018, new terminal deployments must support Contactless. After October 2023, all terminals must support Contactless
- In Europe, new terminal deployments must support contactless. After December 2019, all terminals must support Contactless

<https://usa.visa.com/content/dam/VCOM/download/about-visa/visa-rules-public.pdf>