Contactless Payments: Merchant Benefits and Implementation Considerations

Secure Technology Alliance Payments Council
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Introductions & Agenda

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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

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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

Why Contactless? Why Now?

Oliver Manahan – Infineon Technologies

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

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.

Issuers

EMV = Improved security, <u>but</u> 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

Statistics

Merchant:

- 46% of transactions occur at contactless <u>enabled</u> merchants
- 70% of merchant locations are <u>capable</u> of contactless transactions
- >95% of new terminals shipped are <u>contactless capable</u>
- 10% increase in active unique merchants 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

Status of International Implementations
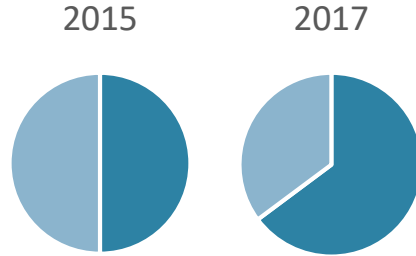
Jose Correa, NXP Semiconductors

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

- Issuance jumped from 50% to 65%

2015   2017

- 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
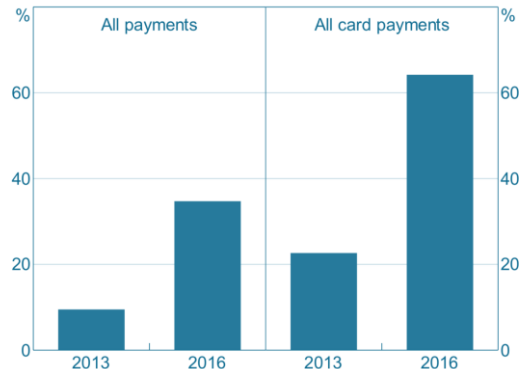- Church of England rolling out contactless donations
  https://www.theguardian.com/world/2018/mar/20/digital-conversion-church-england-cashless-donations-contactless

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/

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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-puacuteblico.html

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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 accept contactless payments?

a.	We already accept contactless transactions
b.	We plan to accept contactless transactions in one year or less
c.	We plan accept contactless transactions in more than one year
d.	We have no plans to accept contactless transactions
e.	Not applicable - we are not an merchant

Contactless: Merchant Benefits

Better Consumer Experience

- Customers will perceive that checkout is faster
- Merchants may be able to tie loyalty programs in with mobile wallets
- Mobile applications such as Apple Pay and Google Pay utilize biometrics and tokens to increase security
- Contactless transactions are intuitive and require less help from a sales associate

Improved Transaction Speeds

- Contactless payments are the fastest way to pay
- Eliminates issues with premature card removal
- Prevents issues with partial insertion or bad reader connection

Contactless: Merchant Benefits

Additional Payment Options

- Consumers can choose how they pay
- Contactless includes cards, smartphones, watches, rings and future NFC enabled options

Absence of Contactless Transaction Limits

- The U.S. has no limit on contactless transaction values
- The same no cardholder verification method (CVM) limits apply as for contact transactions

New Cardholder Verification Methods

- Most mobile wallets use the phone's biometrics, replacing PIN entry
- These mobile transactions stream seamlessly regardless of the amount which may lead to higher spend

Contactless: Merchant Benefits

Enhanced Security

- Contactless EMV payment transactions use EMV chip cryptographic security, making them even more secure than legacy MSD contactless transactions
- If there is an issue with reading the contactless card, the card can be inserted which still maintains EMV chip security
- EMVCo tokenization is used in NFC-enabled mobile devices wallets, protecting the cardholder's actual account number

Reduced Cash Handling

- Contactless acceptance may reduce cash handling, primarily replacing small ticket cash purchases

Additional Service Opportunities

- Vending machines are increasingly accepting contactless payments.
- QSR, Movie Theatres, and others adding contactless at:
  - Cashier
  - Attended kiosks and Remote Unattended kiosks

Increased Spend

- Industry studies show consumers spend more with contactless
- Consumers are not limited by the amount of cash on hand

Increasing Usage and Demand

- Parking Lots and some Big Box merchants are adding contactless
- Mass transit open payments will generate more contactless card issuance
- Consumers will become more accustomed to contactless
- Wearables are faster and easier than mobile wallets

Poll Question

What do you see are the key benefits of accepting contactless payments?
a) Speed through checkout
b) Better consumer experience
c) Enhanced security
d) "Cachet" of new technology
e) Other

Testing Considerations and Best Practices

- **Testing is fundamental**
  - It limits potential interoperability issues
  - Saves time and money during deployment
- **Work with your acquirer/acquirer processor**
  - Acquirer/processor will have unique requirements in addition to payment network testing requirements
  - Gateways connecting to processors may also have unique requirements
  - Identify dedicated resources with EMV knowledge
  - Testing and certifying contactless technology is similar to the process that was followed for EMV contact
  - Consider Faster EMV Solutions

Testing Considerations and Best Practices

- **While working with your acquirer**
  - Determine test requirements
    - Terminal capabilities
    - Configuration
    - Merchant environment
    - Each payment network test plan
  - Conduct internal testing unique to your environment
  - Identify tools that fit your testing needs
  - Minimize unnecessary retesting by isolating the payment application from other software changes
  - Use standardized solutions to reduce the number of solutions that need to be tested or deployed in same terminal family.
  - Modularize and isolate EMV functionality by using semi-integrated solutions

Education – EMV vs. MSD

- Many issuers deploying contactless without MSD
- MSD will be retired by Visa, April 13, 2019

Card or Device Capability		Terminal Capability		Payment Transaction
MSD	EMV	MSD	EMV	
X	X	X[b]	–	MSD contactless
X	X	X	X	EMV contactless
X	X	–	X	EMV contactless
–	X	X[b]	–	Transaction may be terminated and processed as a contact chip or magnetic stripe transaction
–	X	X	X	EMV contactless
–	X		X	EMV contactless
X[a]	–	X[b]	–	MSD contactless
X[a]	–	X	X	MSD contactless
X[a]	–	–	X	Transaction may be terminated and processed as a contact chip or magnetic stripe transaction

[a] Only limited numbers of MSD-only devices are expected to be in the market.
[b] The majority of terminals are currently MSD-only terminals; the number is expected to decline as merchants implement EMV contactless.

Deployment/Acceptance Considerations

- **Business case / cost of deployment**
- **Mobile wallets**
  - Wallet identification
  - Tokenization
- **Education**
  - Consumers
  - Different form factors
  - Point of sale support (cashiers, training, etc.)
  - Signage

Poll Question

What challenges do you see with accepting contactless payments?

a.   Testing and certification

b.   Business case

c.   Lack of consumer demand

d.   Consumer education

e.   None – I don't see a challenge

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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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