Contactless Payment Cards

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Visa
1. Contactless payments market landscape
2. Benefits of contactless payments
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FIS
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CONTACTLESS IN THE U.S

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Visa U.S. Consumer Payment Panel

Visa U.S. Payment Panel Methodology

Developed in 1990, this on-going Visa-commissioned study is designed to monitor consumers’ usage of all plastic and non-plastic payment methods in over 100 merchant categories. The Payment Panel Study is conducted by a major, independent global research firm, TNS, and is administered in English to participants who own at least one payment card and are 18 years of age or older. Results are weighted on multiple demographic variables – household composition, age, gender, race, geographic region, income, credit and debit card ownership – to ensure the sample is representative of US consumers. The information within the study is self-reported on a monthly basis in a purchase diary – the diary captures spending on a transaction by transaction basis from approximately 1,600 respondents per month, totaling almost 20,000 per year. Respondents are asked to record transactions over the course of a month. Information captured on each transaction includes date, merchant category, dollar amount, payment method used, if payment was made over the internet, and if it is an on-going automatic payment – for all debit card transactions panelists also record whether a PIN was used in the transaction. Respondents are asked not to include credit/charge card bill payments, taxes, loan payments, ATM withdrawals (or any other form of cash-Chase k), purchase of travelers checks or prepaid cards, investment products or services, or personal checks made out to themselves.
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Contactless Payments Landscape
U.S. contactless landscape today
Consumers can tap to pay right away as the contactless infrastructure is largely in place in the U.S.

**Merchants**

- **50%** transactions occur at contactless enabled merchants\(^1\)
- **70%** of locations are capable of accepting contactless payments\(^2\)
- **>95%** of new terminals are shipped with the capability of accepting contactless payments\(^2\)

**Issuers**

Several large issuers are already issuing contactless cards, with estimates showing that **2 in 5 cards in the U.S. will be contactless by 2021\(^3\)**

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Benefits of Contactless Payments
Contactless chip cards benefit issuers & cardholders

Seamless consumer experience

Consumers still prefer to use cards over other form factors

Consumers find “tap-to-pay” to be simple, quick, and secure as they can pay in about a second

Happy, engaged cardholders have more frequent transactions and higher spend

Competitive differentiation

Issuing contactless cards demonstrates payments leadership and innovation

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

Contactless cards are more likely to achieve top-of-wallet status

Strong contactless business case

Contactless cards have proven effective in converting cash to card-based payments

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

1. Nilson Report / Euromonitor Data, Q1 17

Note: further details on the points above can be found in subsequent slides.
Consumer preference will shape the future of payments

Ease & convenience
Secure transactions
Fast checkout experience

No matter the form factor, contactless payments enable speed and convenience
There is pent up demand for contactless

Consumers who have a contactless card prefer it to other form factors

% Consumers who prefer contactless cards
(Consumer who own a contactless card)\(^1\)

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<th>Neutral</th>
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<tr>
<td>Mobile</td>
<td>69%</td>
<td>23%</td>
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</tbody>
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Consumers expect an improved experience at the POS

2 out of 3 consumers expect the EMV experience at the point-of-sale to **improve in the next year**\(^2\)

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

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1. AYTM Survey on Contactless, March 2017
2. Visa Global Market Research on EMV, February 2017
Need to streamline the POS

POS technology is inconsistent and confusing

Contactless needs to simplify & declutter the POS
Contactless can accelerate cash displacement

Payment Instrument by Spend Band (In-Store)

More than 60% of transactions <$10 are cash

As contactless grew broad adoption...

Australia experienced a 16% decline in cash usage

The UK saw cash’s share of retail spend drop from 32% to 23% from 2011-2015

Canada saw one-third fewer cash transactions in 2015 than in 2008
Go-to-Market Approach & Next Steps
Visa’s path to accelerating contactless

1 / Prepare the Market
MSD technology will be sunset by April 2019
Testing & certification for qVSDC is now 4-6 weeks instead of 6-12 months

2 / Accelerate with industry partners
Work with issuers, acquirers, merchants and technology partners to grow contactless adoption in the U.S. market

3 / Drive consumer awareness
Increase consumer awareness and usage through marketing campaigns
Standardize acceptance branding at the POS
Educate and train retail staff on contactless at the POS

Note: MSD is Mag Stripe Data contactless; qVSDC stands for Quick Visa Smart Debit Credit (EMV contactless)
Visa has brought contactless to life through marketing campaigns around the world
Thank You
How it Works

- Chip
- Antenna
- Acceptance symbol
Did you know?

Q: How does the security of the contactless card transaction work?
Did you know?

Q: How does the security of the contactless card transaction work?

A: It is based on public-key cryptography, typically RSA cryptography. Each card contains a unique public and private key pair that is used during authentication. When prompted by the terminal, the card uses one key to generate a valid cryptographic code that is sent back to the terminal. This code is unique to that transaction and proves that the card is genuine. The terminal uses the second key to validate the code returned by the card.

Counterfeit fraud has been reduced by 75% for merchants that accept EMV Cards.
Did you know?

Q: Does the contactless card provide the merchant with a "token" or the actual card number?
Did you know?

Q: Does the contactless card provide the merchant with a "token" or the actual card number?

A: EMV (chip only & contactless) transactions are secured via asymmetrical encryption. While a contactless transaction does include the account number, it does not send the 3 digit security code on the back of the card, the cardholder name, billing address or zip code information over the contactless interface. Therefore, a thief won’t have the information typically needed to conduct payment transactions, either in person, on the phone or online.
Myth or Fact

Q: Is it true that a fraudster can skim my contactless card in my wallet?
Myth or Fact

Q: Is it true that a fraudster can skim my contactless card in my wallet?

A: The risk is very low for fraudsters to skim an EMV contactless card for two primary reasons:

-- Only a genuine acquirer bank account can dialogue with a contactless card and proceed with an EMV transaction.
-- Long range skimmers won’t work as you need to be within less than 1-2 inches of the card and device to connect to the NFC communication / antenna.

Myth
Chip expiration
Overview of Changes
As with any technology, there are continual improvements and enhancements, and the same applies to chip cards. The newer chip version is enhanced to align with the newest EMVCo™ specifications. However, this does not make the current chip obsolete.

Any cards issued on the current chip version will continue to function until the expiration date on the plastic. FIS has designed a process that will minimize the time, cost and complexity involved in the conversion of your chip card program to the newest chip technology. Our intention is to help you implement the new chip while minimizing any inventory management challenges during the transition. The process will support the retention of existing Card Form Numbers (CFNs) when placing orders for new custom plastics. These processes are in place and migrations are underway.

FIS will manage the transition of profiles on generic inventory, so no action is required if you use generic plastics.
Chip transition best practices

1. Migration Strategy
   - Confirm contactless strategy (mobile and/or cards)
   - Confirm CVM and chip profile options
   - Natural Issuance vs Program Specific

2. Design Refresh
   - Modernize/upgrade card design (laser, metal, unique effects)
   - Evaluate increasing card expiration timeframe
   - Factor in current stock obsolescence

3. Marketing
   - Showcase innovation for contactless payments (card & mobile)
   - Update messaging for key portfolio demographics (e.g. millennials)
   - Train/educate the consumer on contactless payments
Campaign updates
You have the choice to empower your institution!

Step 1 – Readiness (2018)
- Work being done by FIS, on a per Institution per Platform Basis
  - Includes preparing your network paperwork (Visa/Mastercard only) including BINS, Customer Name, Profile Certification, and Keys – as well as staging system parameter changes as needed
  - Does not include Non FIS Card Production, new BIN creation, ATM only configuration, and instant issuance

Step 2 – Enablement (2019)
- Work to be done with each institution per platform basis
  - Includes submitting network paperwork, configuration changes, and key loading