The Future of Payments

The Advent of Chip and Cardless Payment Products

Agenda

- Convergence

- How Technology is Shaping the Future of Payments

    - EMV

    - Contactless

    - Virtual Cards

        - Purchasing

        - Travel

    - Mobile Payments and Wallets

- Considerations and Benefits to Travel Programs

Physical and Digital Worlds are Converging

MasterCard

Every connected device *will* become **a commerce device**

- Shop online
- Shop in-store
- Enhanced experiences
- Receive payments

Global Cardholders are Transacting Anywhere: Online, Offline, Physical, Digital

Receiving payroll and social benefits on mobile phone or card

Paying bills or merchants via SMS on a mobile phone

Accessing ATMs and merchants

Emerging Market

Developed Market

Consumer Experiences

Shopping on a mobile phone or tablet

Commuting with a *PayPass* enabled mobile phone

Dining with a physical card

The Commercial Wallet is Evolving

NFC Handsets

Contactless Micro SD cards

Flexi Antenna
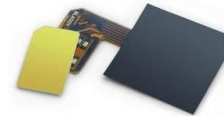
Mobile TAG

Contactless cards

Your wallet

EMV: Foundation for the Next Generation of Payment Products and Services

Mobile Contactless Contact ATM e-Commerce

Global interoperability   Greater security and control   Seamlessly integrate loyalty programs and offers   Power future innovation

What is EMV?

- EMV chip cards leverage microprocessor technology

  - Increased transaction security features

  - On-behalf network security services

  - Application capabilities not possible with traditional magnetic stripe cards:

    - Customized authorizations

    - Cardholder profiles

    - Gate/door access

Commercial Analog to Digital Transition

- Fixed content
- Passive
- Limited Data
- One Size Fits All

- Flexible content
- Active
- High Capacity
- Customizable

The Cardholder Experience

1 **Card Authentication**
Cardholder inserts or taps card on terminal

2 **Cardholder Verification**
Cardholder enters PIN or signature

3 **Transaction Authorization**
Transaction is approved and completed

How the Cardholder Experience is Influenced by the Card Issued

	Mag Stripe	Chip & Signature	Chip & PIN
Connectivity	Issuer's host system	Terminal interacts with info on the chip for verification, authorization, and approval	
Information	Limited info stored on card	May hold additional information (e.g. rewards)	
Acceptance (General)	Steady	Increasing	Increasing
Current Acceptance Outside the US:			
Toll booths	Sometimes	Sometimes	Yes
Unattended kiosks	No	Sometimes	Yes
Automated Fuel Dispensers	No	No	Yes
Onboard (trains and planes)	Sometimes	Sometimes	Yes

- Things to consider

  – Do you have a large number of cross border transactions?

  – What features are most important to your company?

- Talk with your issuer to find the chip card and timing that is right for your organization

- Contactless payment solutions give cardholders the convenience of making payments without handing over or swiping a payment card.

- Types of Transactions
  - Transit
  - Quick Serve Restaurants
  - Low value payments (Drug Stores)
- Form Factor
  - Chip on card
  - Sticker

Virtual Cards

- Any payment where physical plastic is not issued

- Form Factor

  - Ghost Account (aka BTA, CTS, CTA, Lodged Card)

  - Multiple Use Account with one vendor (aka, VCN)

  - Single Use Account (aka SUA, VCN)

- Types of Payments

  - Air for whole company (ghost account) transacted through an agency for multiple vendors

  - Office supplies (multiple use account, lodged card) with one vendor

  - B2B payment (SUA) for specified amount, usually time bound

- Single Use Accounts are used
  - For enhanced control and security purposes
    - certain employees may request a single virtual card number which is approved through a workflow process for a specific amount and purchase category
  - For the accounts payable application to displace check payments
    - the customer's accounts payable system sends a file to batch requests of virtual card numbers
  - By a distributor/re-seller in the B2B space for each separate supplier
    - full amount is charged to the re-sellers primary account

Mobile Payments and Wallets

- **What is Mobile?**
  - Cloud, NFC, or both?
- **Form Factor (today)**
  - Wirelessly via NFC chip in the handset (Google Wallet)
  - Optically via barcodes (Starbucks app)
  - Wallets today are only for online eCommerce use
    - (MasterPass , PayPal, vMe)

- **Form Factor (future)**
  - Integration with offers, coupons, eReceipts, and geoloacation services
  - Wallets tomorrow could be used for any remote payment, and may interact with the secure element on the EMV chip

Benefits and Considerations of Existing and Emerging Payment Technology for Travel Programs

MasterCard

	EMV	Contactless	Virtual	Mobile/Wallets
Demonstrated Benefits	• Greater acceptance • Greater data collection • Increase convenience for travelers • Increase traveler safety (carry less cash) • Increase traveler satisfaction • Increase overall spend on card	Same as EMV, plus • Convert small cash transactions to card	• Greater control over payment • Range of solutions to fit payment needs • Improves reconciliation • Greater data collection • More secure/less fraud	• Integration into other products and services • Increase convenience for travelers • Increase traveler satisfaction
Considerations	• Need to remember a PIN • Already a global standard, so international travelers are impacted now	• Card, sticker, or mobile integration	• May require additional support • Spectrum of v-payment options to choose from	• Business travelers will adopt sooner • Security - ensure IT involvement • Merchant acceptance currently limited

Takeaways

- The payments landscape is dynamic

- Innovations will change how we pay

- Consider security, convenience, and cost when evaluating new options

- Engage your issuer now