

Mobile Banking and Payments: Innovation and Risk

LBA Bank Counsel Conference

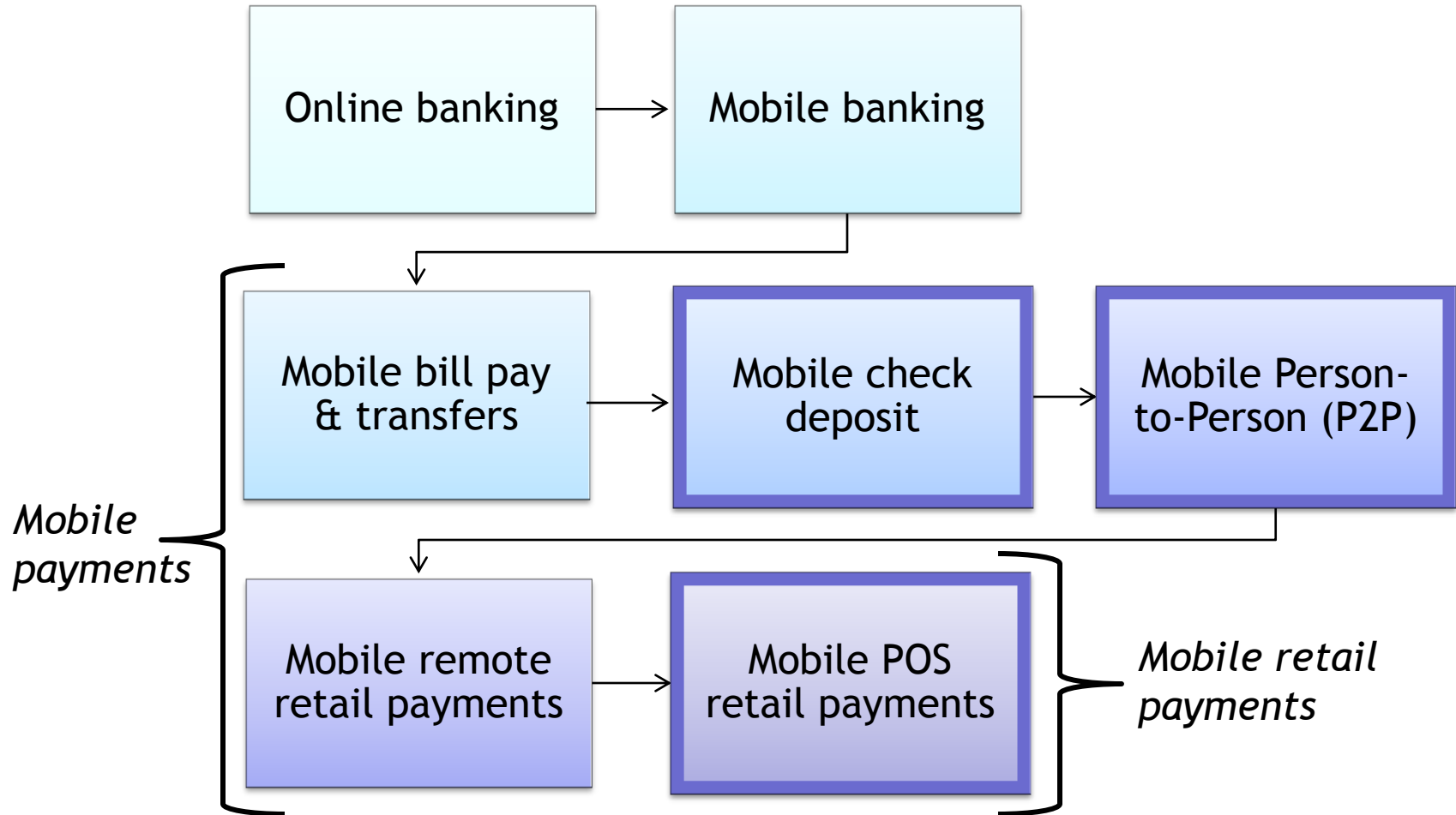


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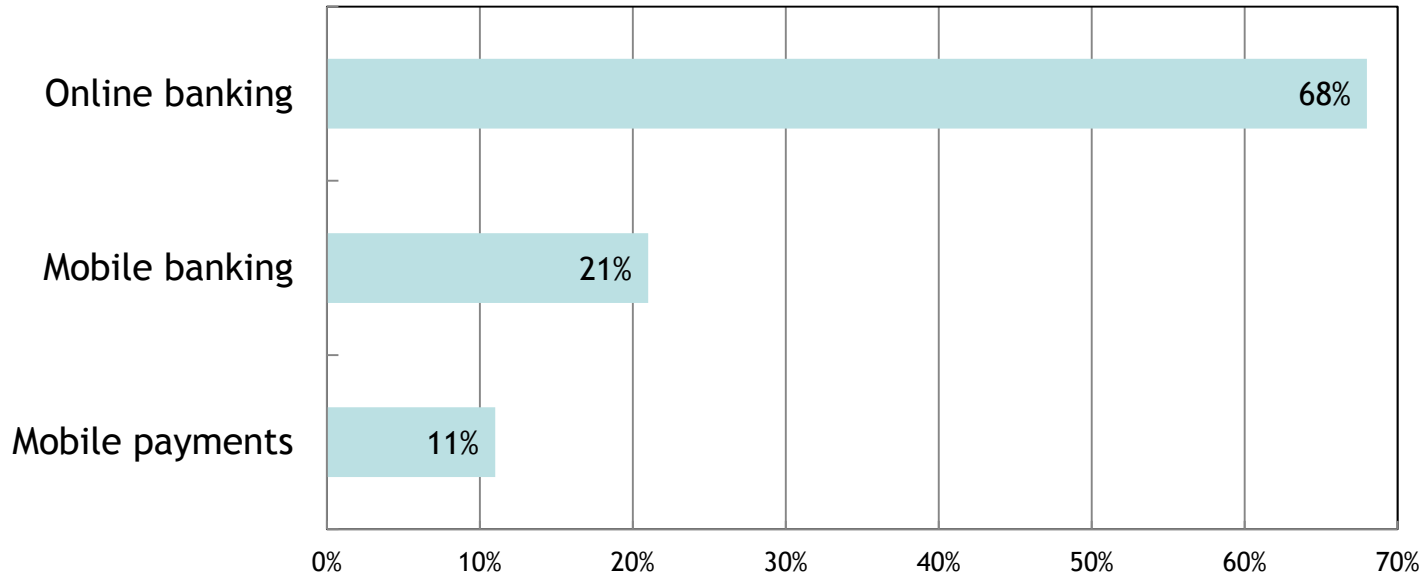


Mobile evolution in the banking industry



Consumer use of mobile financial services

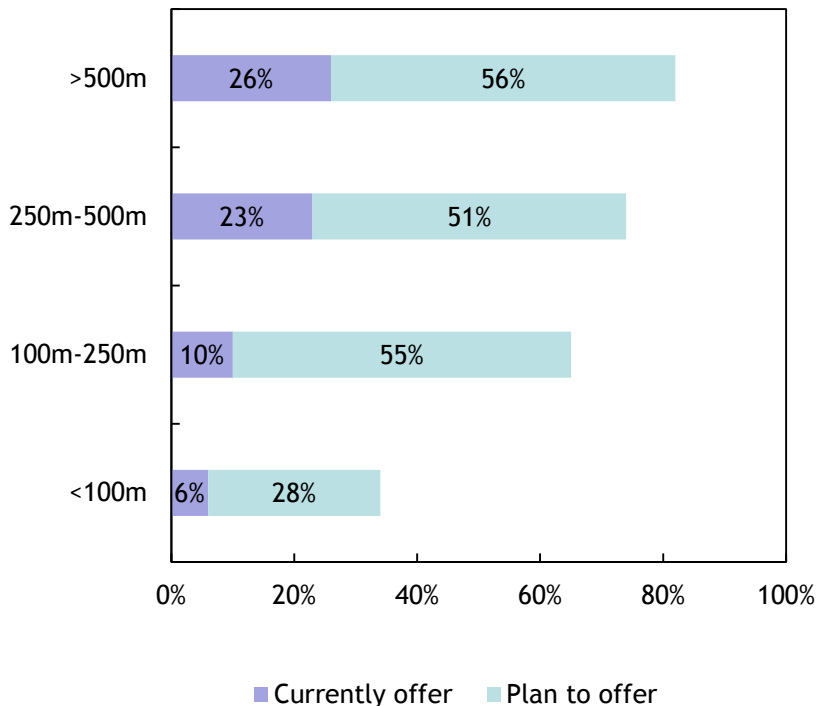
Usage of different means of accessing banking services
in the past 12 months



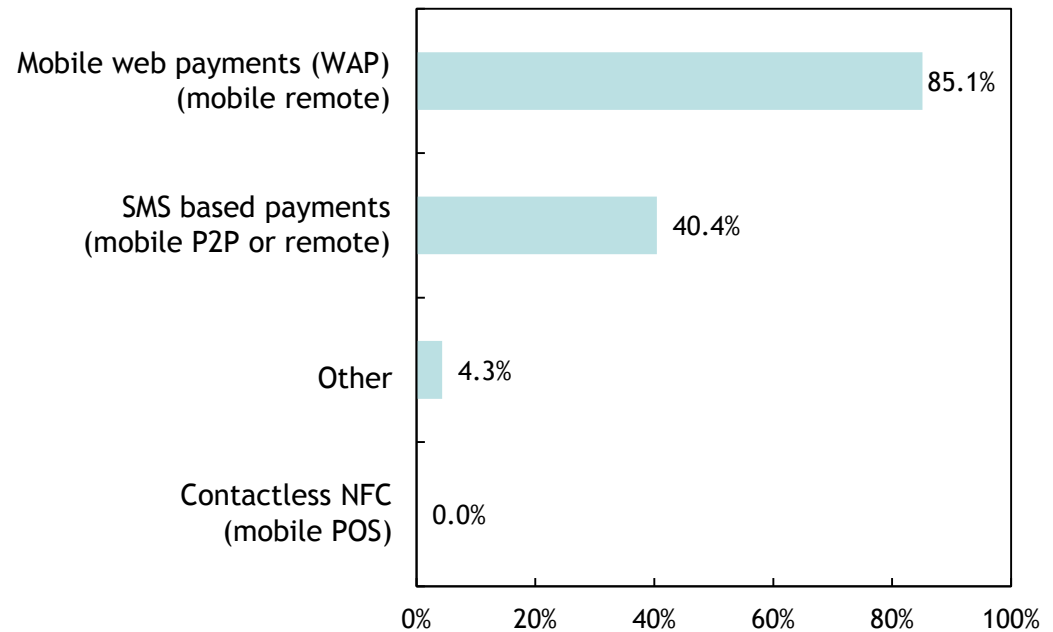
Source: FR Board “Consumers and Mobile Financial Services,” March 2012.

More community banks are offering mobile payments services

Currently offer or plan to offer



What type



Mobile Check Deposit Gains Popularity with Consumers



Service and Risk Management Considerations: A Case in Point

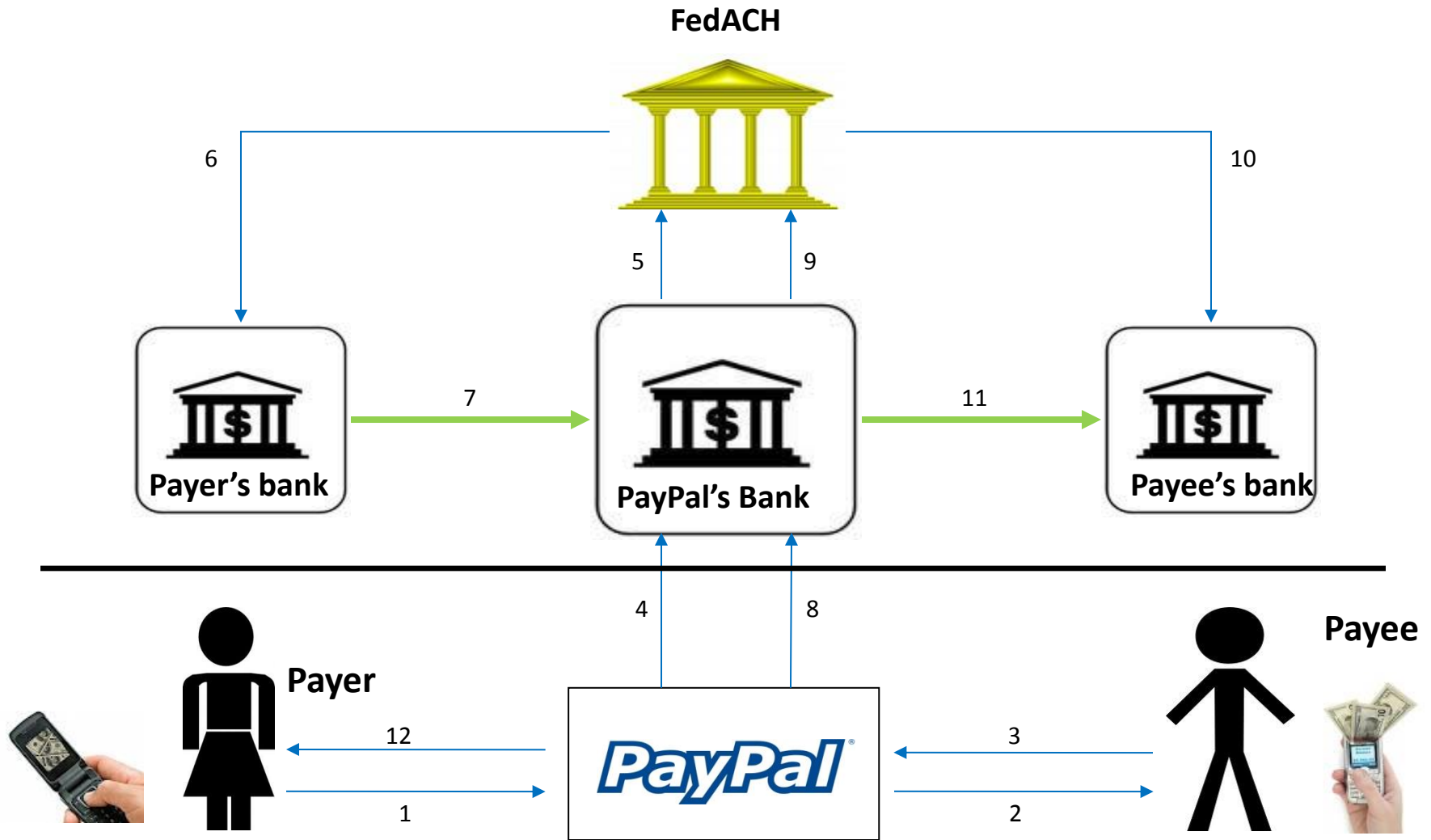
- Devices available
- Account profile (age, average balance, overdraft history)
- Daily/monthly dollar limits
- Number of item limits
- Cut-off times
- Item types (third party checks)
- Dollar values triggering staff review and hold decisions

Mobile P2P methods

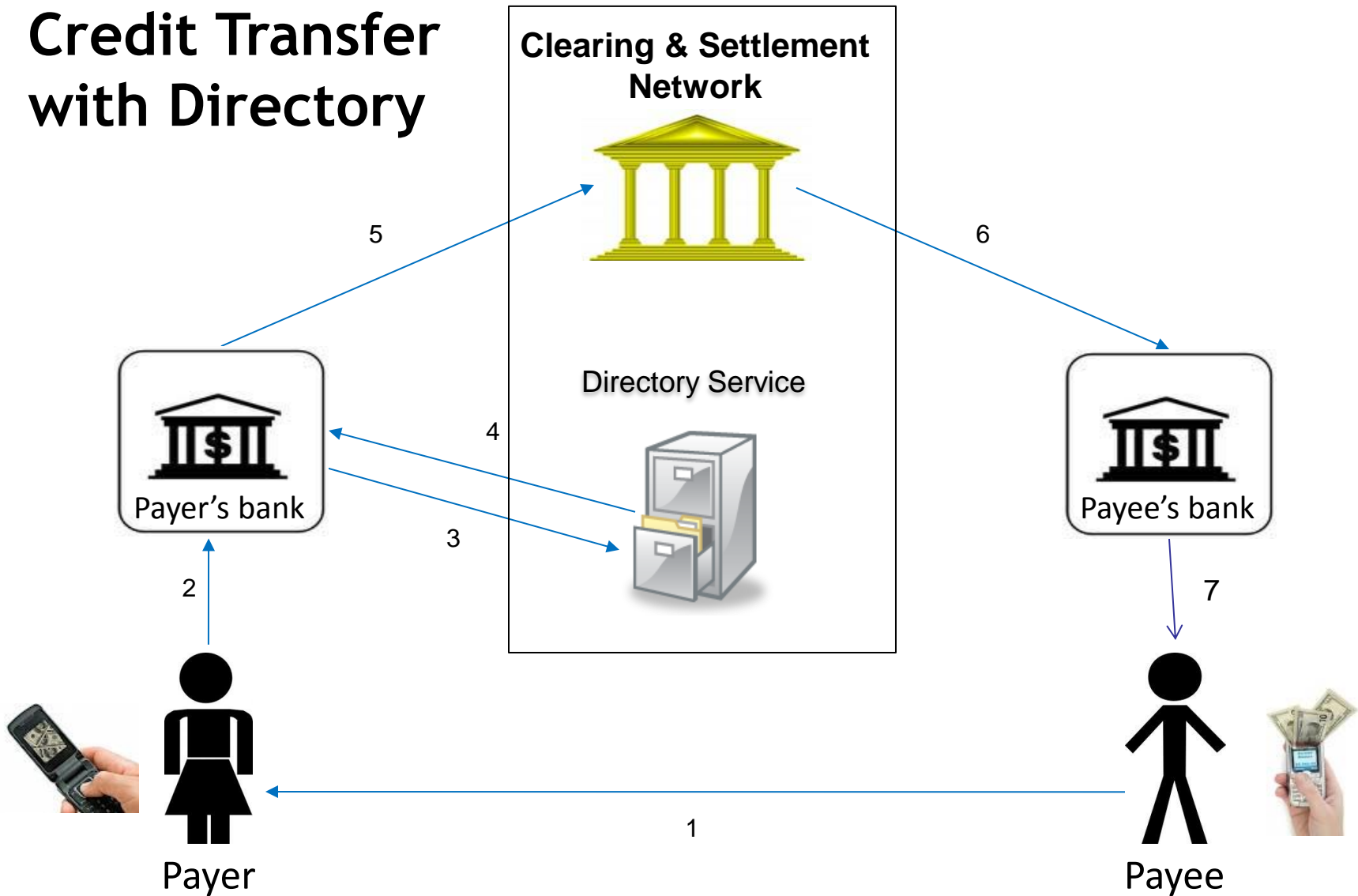
Dominated by nonbanks but none gaining traction



Nonbank Model for P2P Using PayPal



Bank Model for P2P: Credit Transfer with Directory



Mobile payments at point of sale

- **Great deal of underlying variability among current offerings:**
 - Multiple technologies
 - Multiple business models
 - Multiple funding sources

Mobile POS payments: technologies

- Near field communication (NFC)
 - ✓ Google Wallet and Isis



- QR code/Bar code
 - ✓ Starbucks and LevelUp

- Cloud-based
 - ✓ PayPal



Mobile POS payments: technologies

•Strengths and weaknesses

	NFC	QR code/Bar code	Cloud
Strengths	<ul style="list-style-type: none"> •Based on NFC standards •Applicable to open system 	<ul style="list-style-type: none"> •Low dependence on MNOs and handset manufacturers •Works well with closed loop system 	<ul style="list-style-type: none"> •Low dependence on MNOs and handset manufacturers •Easy integration across remote and POS payments
Weaknesses	<ul style="list-style-type: none"> •Complex dependency on MNOs and TSMs •Potentially high dependence on handset manufacturers •POS terminal upgrade required 	<ul style="list-style-type: none"> •Lack of standards •Static barcode poses higher fraud risk 	<ul style="list-style-type: none"> •Reliable Wi-Fi or 3G connection is necessary •Accessing the wallet server adds additional party to the transaction routing •Lack of standards

Mobile POS payments: business models

- **Mobile network operators and card networks**
 - e.g., ISIS
- **Nonbank payment providers and card networks**
 - e.g., Google Wallet and PayPal
- **Nonbank payment providers**
 - e.g., LevelUp and Pay with Square
- **Merchants**
 - e.g., Starbucks, Chipotle, and Merchant Customer Exchange (MCX) mobile wallet

Mobile POS payments: funding sources

- Single account or multiple accounts
- General purpose credit, debit, and prepaid cards
- Bank accounts via ACH
 - ACH credit (e.g., Secure Vault Payment)
 - ACH debit (e.g., PayPal and merchant ACH cards)
- Prefunded accounts
 - e.g., PayPal and Starbucks

Mobile Payments Security

- Some consumers are not confident in security of mobile POS payments.
- Mobile payments have the potential to significantly reduce the likelihood of fraudulent POS transactions as compared to mag-stripe cards or even EMV cards. (Chip enables dynamic authentication, password protection of mobile device and mobile payment applications, biometrics, etc.)
- Are payment data necessary for transactions securely stored? Cloud vs. Secure Element.
- Is transmitting data to/from mobile device secure? NFC vs. WAP vs. barcode?

Regulation of mobile payments

- Currently, no one law or governing authority oversees mobile payments.
- Five financial regulatory agencies—FRS, FDIC, OCC, NCUA, and CFPB—and two other regulatory agencies—FTC and FCC—have some oversight responsibilities.
- Current regulations and laws applicable to underlying payment methods (credit, debit, prepaid cards, and ACH) govern mobile payments today.
- Certain clarifications about laws and coordination of regulations, especially consumer protection, across different payment methods have been suggested by industry participants and consumer groups.



Regulatory & Legal Challenges

Complexity of Multiple Regulatory Oversight

- **Newly created CFPB** - how will it interpret/apply existing 18+ consumer protection laws/regulations it inherited after Dodd-Frank? New regulations?
- **FTC** - Has jurisdiction over many entities in the mobile payments space, including hardware manufacturers, operating system & application developers, advertising companies, and even telecommunications providers when not engaging in common carrier activities
- **FCC** - role in mobile payment space? What interest will it have?
- Is existing regulatory environment adequate framework for mobile payments?
- Online v. mobile payments - Similarities to payments initiated in both environments lead to common elements of risk management/safety and soundness considerations from regulatory perspective

Consumer Laws & Complexities

- **Deposit Insurance** - Are funds held in a depository institution? Virtual currencies are not FDIC insured. Many, but not all, GPR cards are FDIC pass-through insured.
- **Dispute Resolution Procedures/Protections** - Currently, procedures/protections depend on the underlying funding source linked to mobile payment

Fraud Issues & Responsibilities

- **Risk of Account Takeover** - Evolving tactics: Social engineering
- **Commercial account protections**: Interpreting “commercially reasonable” of Article 4A of UCC- recent 1st Cir. Patco case

For Further Information

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