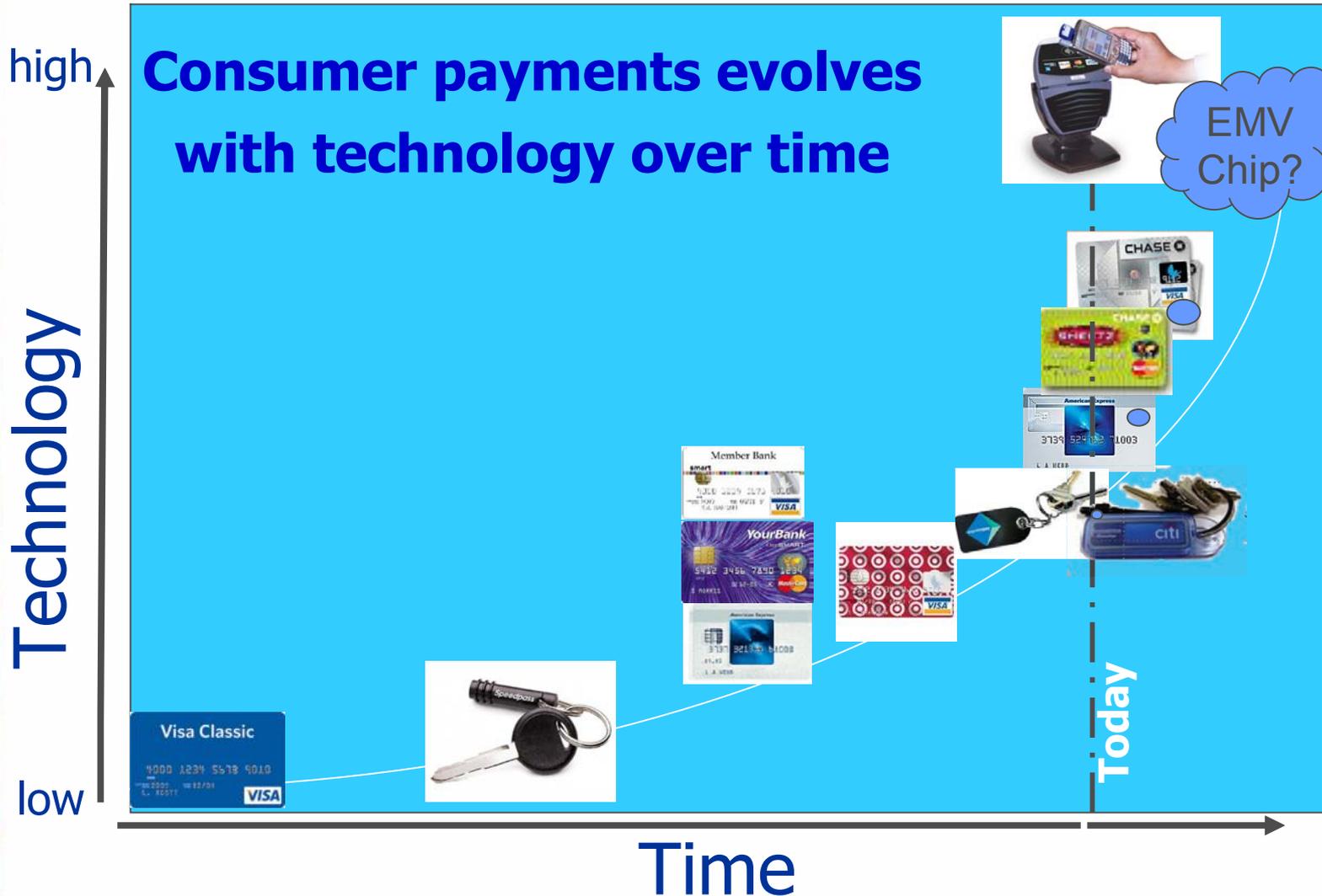# Contactless Payments: Delivering Merchant and Consumer Benefits

Randy Vanderhoof, Executive Director, Smart Card Alliance
2007 EPRG Contactless Forum - Federal Reserve Bank of Boston
May 21, 2007

Building the Foundation for a Contactless Way To Pay

Form factors

applications

Payments Infrastructure Roadmap

Consumer payments evolves with technology over time

Technology

high

low

Time

Today

EMV Chip?

Contactless Smart Cards Are Driving Payment Innovation in Multiple Ways

- ➢ **Increased Speed and Convenience**
  - ➢ Contactless payment vs mag stripe swipe with signature
  - ➢ No receipt for transactions under $25 - $50
  - ➢ Driving traditional cash spend market to card payment
  - ➢ Consumer + Merchant + Issuer win-win

- ➢ **Multi-application Capability**
  - ➢ Chip can host loyalty, ePurse, transit accounts
  - ➢ Form-factor independent
  - ➢ Banks can choose to be issuer or application only

- ➢ **Intelligent Platform Brings Added Security**
  - ➢ Secure cryptogram for one-time processing
  - ➢ Card does not leave cardholder's hands
  - ➢ Card data in chip can not be copied or altered

All benefit – merchants, issuers, and consumers

Merchants
speed, spend, cost, insight
- Simpler and faster than cash
- Shorter queues
- Can increase spend
- Improved customer satisfaction
- Increases customer loyalty
- Reduced cash handling fees
- Ability to capture data on customer buying behavior

Issuers
revenue, differentiation, and loyalty
- Increased spend results in increased interchange revenue
- Customer retention and acquisition
- Capture cardholder data for marketing and rewards programs

Consumers
speed, convenience, security
- Speed
- Convenience
- Better able to track spend
- Security

Contactless Payment: Issuers Meet Demand for Speed and Convenience – SCA webinar May 3, 2007, source Deb Baxley, IBM

New Card Payment Opportunities for Issuers, Merchants, and Consumers

Transit - New York City Subway

- ➤ MasterCard, Citibank, and MTA New York City Transit trial of contactless payments in select New York City subway stations,

Mobile Payment - Atlanta NFC Mobile Phone Pilot

- ➤ Cingular Wireless, JP Morgan Chase, Nokia, Philips, Visa USA and ViVOtech implementation of contactless payment with NFC-enabled mobile phones at Philips Arena

Gift Cards - Colorado Merchant's Gift Card Pilot

- ➤ Smoothie King Franchises launch first contactless gift card program issued by a non-bank (First Data) in its Colorado stores.

Vending Machines - Coca Cola Vending Pilot

- ➤ Coca Cola, MasterCard, and USA Technologies install over 1000 vending machines in Philadelphia to accept contactless payment

Micropayments - Utah Transit Accepts Credit on Ski Resort Buses

- ➤ UTA, ERG Group, and Peppercoin launch system to allow consumers to use their contactless credit and debit cards to pay for transit fares on 41 Salt Lake City Ski Service buses

Key Findings of Consumer Research

75% of consumers yet-to-try contactless are somewhat likely or very likely to adopt

For 84% of consumers who tried or are likely to try contactless, it's at least as safe or safer than swiping credit or debit cards

Awareness increases likelihood of adoption

➢ 60% of consumers familiar with contactless are very likely to use contactless

However, security concern is a potential barrier to adoption:

➢ 61% of non-adopters report safety as the top concern

Published by Javelin Research and Strategy, September 2006

Key Findings of Merchant Research

Within 24 months, 58% of retailers responding to survey will have contactless payments in place

➢ 28% will adopt within 12 months

Main concerns are of retailers is the rate of adoption and performance of devices

Underlies merchant attitudes towards new technology

- Challenge of POS integration
- Check-out personnel training
- Critical mass to achieve efficiencies and repeat usage

60% of merchants site faster transaction time and main benefit

However, 80% don't use transactional data in business analysis

Published by Aberdeen Group, Retail Contactless Payments Systems Benchmark Report, January, 2007

What About Security?

Media doesn't understand the technology and fundamentals of payments security

- ➢ Confuse RFID weaknesses with RF-enabled contactless smart cards
- ➢ Lab attacks are difficult to reproduce in real life

Security principles of contactless payments

- ➢ Contactless read range limited to 10cm (about 4 inches)
- ➢ Transaction data transmitted is "single use"
- ➢ Security extends to the overall payments system
- ➢ No additional personal data stored in chip (except possibly the name)
- ➢ Consumer is 100% protected by "zero liability" coverage

http://www.smartcardalliance.org/pages/activities-councils-contactless-payments-resources

A Contactless Future for Smart Cards Beyond Payment - Why?

Adoption in U.S. takes a turn to RF

- Financial payment
- ePassports
- Secure ID badges
- Public transportation
- Mobile telecom

Contactless seizes the high ground – Why?

- Stable international standards (ISO 14443)
- Manufacturing efficiencies for cards, terminals
- Meets or exceeds issuers required security, data storage, and cost parameters
- User speed, convenience and form independence

..builds on solid contact chip foundation

What Is Left To Be Done?

Education surrounding the technology

- ➢ Technical:
    - ▪ Contactless payment vs other RFID technology
- ➢ Payments Security:
    - ▪ Understanding end-to-end security
- ➢ Consumer Awareness and Merchant Training
    - ▪ How does it work?
    - ▪ When & where to use it?
    - ▪ Is it safe?

Legacy infrastructure upgraded or replaced

Privacy guidelines need to established

Satisfy regulators and media about consumer protections and security

Additional Resources

Contactless Payments Council Resources

- **Contactless Payments: Issuers Meet Demand For Speed and Convenience**, May 3, 2007 web seminar
- **Contactless Payments Frequently Asked Questions**, Feb 2007
- **Retail Contactless Payment Systems Benchmark Report: Improving Customer Retention and Loyalty**, Aberdeen Group report, January 2007
- **The What, Who and Why of Contactless Payments**, Contactless Payments Council position paper, December 2006
- **Smart Card Alliance Contactless Payments Security Q&A**, Contactless Payments Council position paper December 2006
- **Smart Card Alliance Contactless Payment Security Statement**, Contactless Payments Council position paper November 2006
- **Contactless Payments: Consumer Attitudes and Acceptance in the United States**, Smart Card Alliance and Javelin Strategy & Research report, November 2006
- **Contactless Payments: A New Era of Payments for Retailers**, February 22, 2006 web seminar produced in partnership with the National Retail Federation STORES Magazine.

www.smartcardalliance.org

Thank You ……

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