

# Migrating to EMV What We Need to Know

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# About SafeNet

*SafeNet is the largest company exclusively focused on the protection of high-value information assets.*



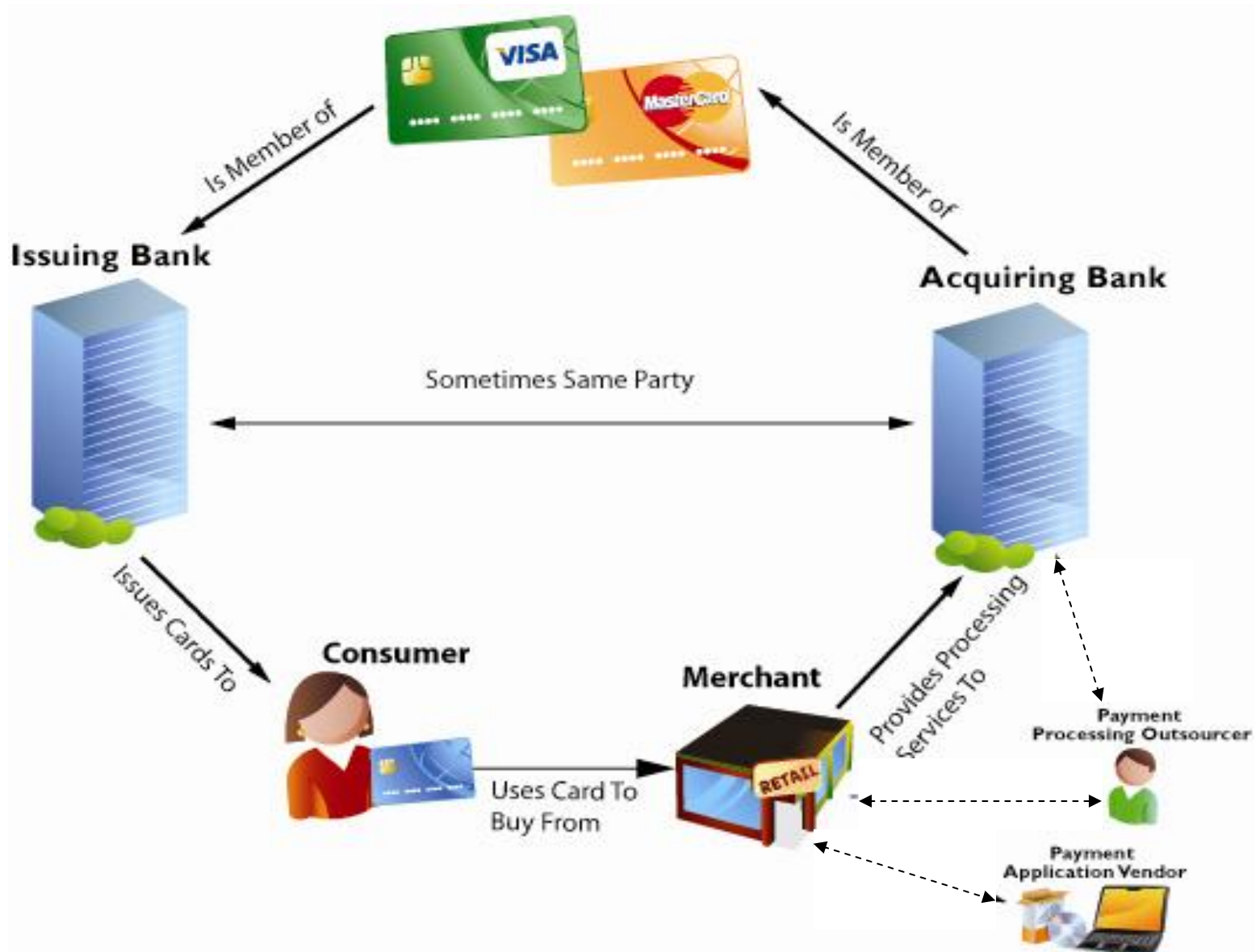
- Global success with over 25,000 customers in 100 countries
- Employees: 1,650 in 20 countries
- Revenue: \$500 million
- Best-in-class Security Technology: products are certified to meet highest security standards
- Expertise: over 600 IS engineers
- Founded: 1983
- Ownership: private
- Over 75,000 HSM sold, including payment HSM!



# Why are we talking about EMV?

- US issuers will soon be issuing EMV cards to international travelers!
- Why?
  - EMV is happening everywhere else
  - Try using a mag stripe card in the UK or Germany!
  - Fraud migration...

# The Payment Ecosystem





# The Issuer's Perspective

- Issues:
  - Highly profitable market, but
  - Rising fraud (debit and credit)
  - Requirement to protect brand
  - Eroding cardholder confidence; confidence in system is at stake!
- Solution:
  - EMV



# The Issuer's Business Case

- Reduction in fraud losses:
  - Decreased losses on transactions by 67% in 2007
  - Mail non receipt decreased by 34% in 2007
  - Fraud migrating to card not present, mag stripe cloning
- Electronic back office savings
- Costs:
  - Cards are costly
  - Systems upgrade
  - Need to update fraud management systems



# The Acquirer's Perspective

- Issues:
  - Internationally, the payment associations mandate the migration to EMV
  - It is a cost of doing business
  - Acquirers do not generate the margins to cover the cost of the investment
  - Acquirers need to pass this cost to the next in line...
  - Especially since the current business model is under attack!
    - Web model
    - Interchange fee legality questioned



# The Acquirer's Business Case

- Where is the additional revenue with EMV?
- Costs:
  - Terminal retrofit
  - Back office updates required (new transactions, new formats)
  - Testing with multiple retailers
- Liability shift, when present, changes the dynamics.



# Typical Retail Transaction

- A transaction may include:
  - Client identification
  - Order management
  - Pre-payment (total or partial)
  - Scanning the goods
  - Inventory management
  - Accounting and taxes (incl. tax refunds)
  - Customer relationship management
  - Loyalty management and redemption
  - Reimbursements / returns
  - Split payment
  - Determination of total due
- Then, payment authorization



# EMV for Retailers

- It might be much more than just swapping a POS device!



# Top 10 Retailer Questions

- I do not have to do EMV in the USA, right?
- Is it just a terminal upgrade?
- How will my business benefit from EMV?
- How much will it cost?
- What will change with EMV at the point of transaction?
- Will mag stripe still work?
- How will EMV integrate with other technologies like Paywave?
- How can I best train my workforce?
- How can I leverage EMV to do more?
- How can I use EMV to grab market share?



# Potential Changes with EMV

- Device certification (including fiscal certification) (PCI & EMV)
- Kernel certification (PCI and EMV)
- Flow of transaction
- PIN on credit card transactions
- Devices
- Telecom
- Transaction receipt retention
- Liability (Visa)
- No card reads on keyboard



# Benefits to Retailers

- Benefits you say? Let me think...
- I think I have it now!
  - Chargebacks
  - Slight reduction in credit transaction time
    - PIN is quicker than signature
    - Processing time of debit and credit will be a little longer
    - Still quicker than cash
  - Opportunities for value-added applications
  - Reassurance to consumers
  - Paper receipt retention period



# Costs to Retailers

- Leased terminals: no change (probably)
- Owned terminals: new ones required
  - IP terminals probably → telecom setup costs
- Integrated terminals:
  - Third-party systems:
    - migration costs
    - New PIN pads
  - Proprietary systems:
    - New PIN pads
    - Development costs
    - Certification costs
- And BTW, PCI compliance (DSS, PA, PED)



## Why do we have to do this?

- You don't 'have' to do this
- But:
  - Organized crime will migrate fraud to the point of least resistance
  - Liability shift might apply
- Retailers might have to do this to continue accepting debit, and to minimize credit losses.
- Remember, some clients will eventually carry chip cards.
- Those may in time be combi contact/contactless cards
- The alternatives are cash, cheques, bartering, etc.



# What is not covered in EMV?

- Card not present transactions
- Web transactions
- Any transaction other than purchase (but issuers and acquirers have best practices)
- Multi-application (outside of payment)
- Combi cards / contactless EMV
- Other form factors
- Other acquisition schemes (NFC, etc)



# Where is the business case?

- There might not be a direct business case
  - Significant costs for large integrated retailers
  - Returns are limited
  - Fraud reduction
- Opportunity costs are significant
  - EMV is costly
  - Are the alternatives cheaper?
  - Mag stripe → liability shift, fraud migration
- Retail absolutely needs card payment (bartering? cheques? cash?)
- There might be a societal business case



# How Should We Do This?

- Plan ahead!
  - Scarcity of equipment, resources is probable
  - EMV usually is not as simple as it seems
  - EMV usually takes longer to implement than planned
  - Risk analysis
- Be an active participant ASAP
- Integrated solutions might require complex upgrades
  - Changes to transaction flows
  - Complex hardware upgrades (gas pumps)
- What about private label cards? Gift cards? Loyalty cards?
- Training, training, training!



# What Else?

- Best practices, including PCI
  - Think of contactless migration path at the same time, to simplify migration
  - Value-added products or services
    - Restaurants: payment at the table
    - Loyalty & retention program
    - TCP/IP network integration
    - Other form factors
- 
- ➔ Develop a vision of how transactions will evolve
  - ➔ Leverage EMV to open new opportunities



# In Conclusion

- Plan ahead!
- Beware of the proprietary route!
- Use EMV as an opportunity
- Get help from the experts!



# Questions?

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# Thank you!