

Security and efficiency of biometric solutions

ITU

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Summary

- Biometrics
 - Introduction
 - The way to implement biometric solutions
- Biometrics in payments
 - What we learned in the experimentation in France
 - The Apple Pay case

Biometrics



ALLIANCE

Trend of biometric authentication

- Several biometric authentication technologies have been tested : Iris / Vein / Voice / Fingerprint
- Trend emphasis in 2013 with fingerprint
 - For convenience (unlock devices)
 - In-App authentication (App store)
 - ➔ Real benefits lead to consumers adoption
- 30% of organization will use Biometric authentication in 2016*



*Gartner research February 2014



The way to implement biometric solutions

- Key success factors are
 - Data under user control (no biometric DB)
 - Convenience (user experience & maturity)
 - Security
 - Privacy
 - Evaluation of Biometrics technologies / Testing and Certification

Biometrics in payments

What we learned in the experimentation in France



A 6 months pilot (March 2013)

- 4 large supermarkets and many merchants involved
- Near 1000 Cardholders with their biometric data in their card
- Near 5000 transactions
- 200 POS

More than 9 out of 10 pilot participants ready for biometric payment

42,5% of transactions over 50 €

Gain of 25s per payment



Benefits

CONVENIENT

hands-free
experience



FAST

No fumbling
No code



SECURE

Strong
authentication
based on
biometrics + at
least another
factor



PRIVACY

Respectful of
privacy &
personal data



The Apple Pay case

Is not only about biometrics!



Apple Pay

I Main features

- One touch checkout
- Tokenization with card schemes
- No card information shared with merchant
- No specifics on merchant checkout solution
- Current payment flows maintained

I Security features: Token + Biometrics

- SE for the DAN (token)
- TEE for Touch ID

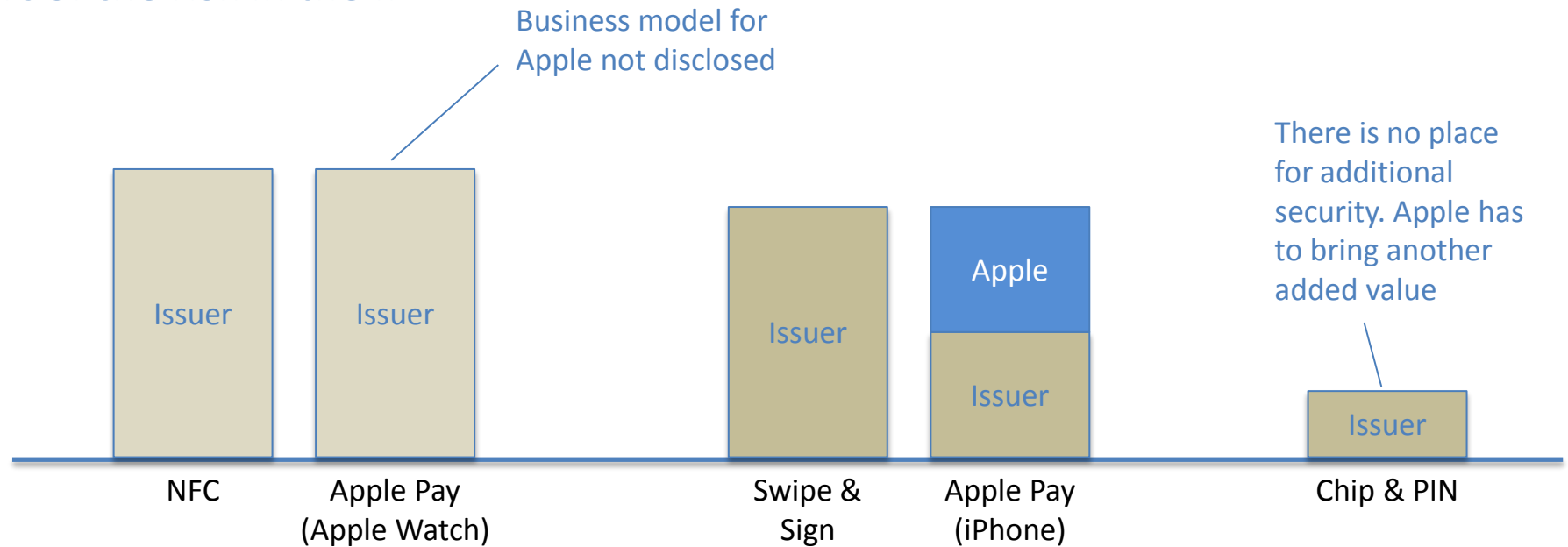
I However

- Business model relevant only to USA: level of interchange fees (IF) allows a new player in the value chain (security gain)
- It implies a blind trust of banks and card schemes into Apple: Certification? Security of the solution?
- Available on iPhone 6 and iPhone 6 Plus only



Apple Pay business model (face to face)

Part of the risk in the IF



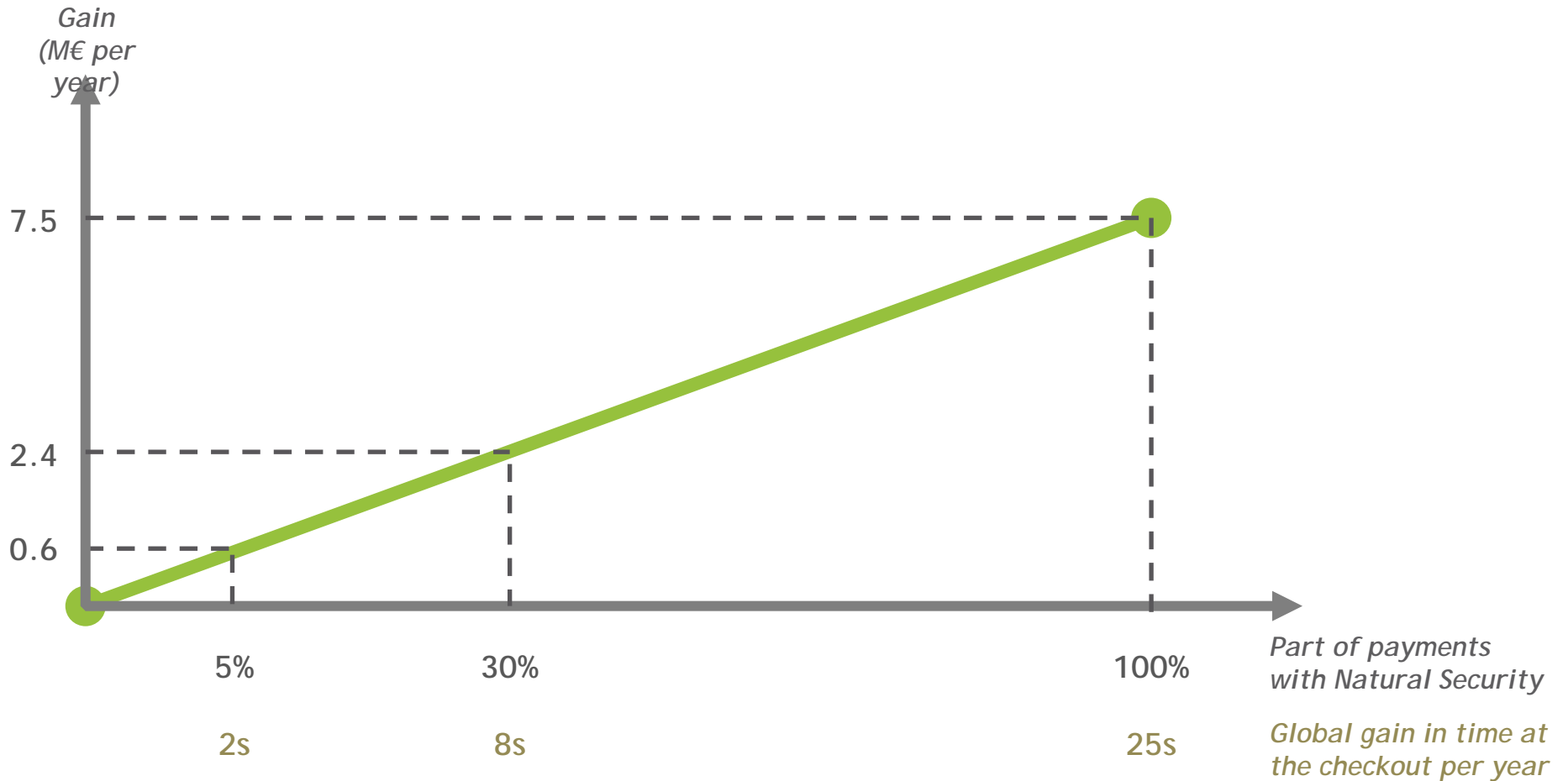
- Apple business model is based on the added value they bring to the issuers: more security in the transaction for the issuers (vs. swipe & sign).
- Benefits for merchants are tiny → MSC remains the same.
- Question: what is the liability of Apple in case of dispute on an Apple Pay transaction?

The “Do not modify the checkout” dogma

- As for all mobile wallet solutions, Apple Pay focused on end-users and/or banks
- Some merchants (Wal Mart, Target...) already stated that they will not accept Apple Pay
- Merchants are quite never involved due to the “Do not modify the checkout” dogma
 - But merchants do not promote a payment solution which does not bring them benefits
 - For instance, they agree to modify their systems for an important costs reduction: time, MSC... (no pain, no gain)



Natural Security has a viable business model for retailers



Figures from a real case in France (10.000 POS)



Apple Pay vs. Natural Security user e

Use the card by



1. Take you smartphone from your pocket/bag



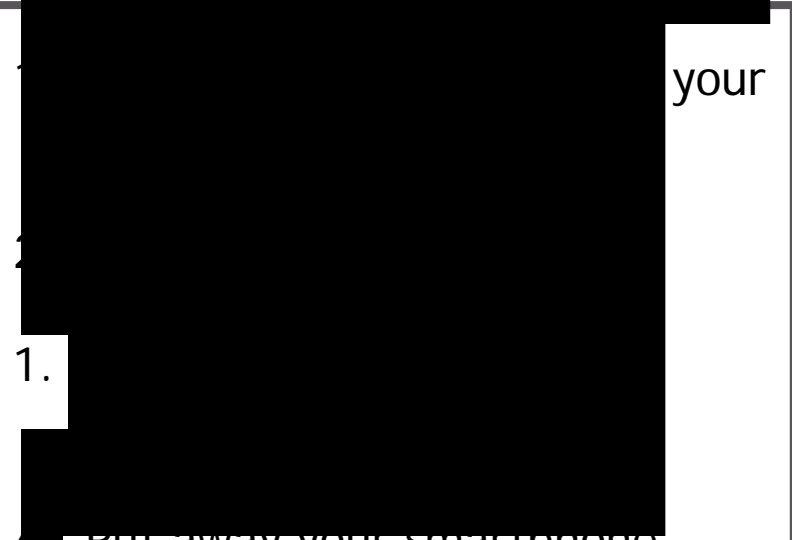
2. Tap your smartphone with your finger on Touch ID



3. Put away your smartphone



With
iPhone 6 &
iPhone 6 Plus



your

1.

4. Put away your smartphone



With any
device



Apple Pay vs. Natural Security user ex

Choose a card



- Take your smartphone from your pocket/bag



- Tap your smartphone at the target (Passbook popup)



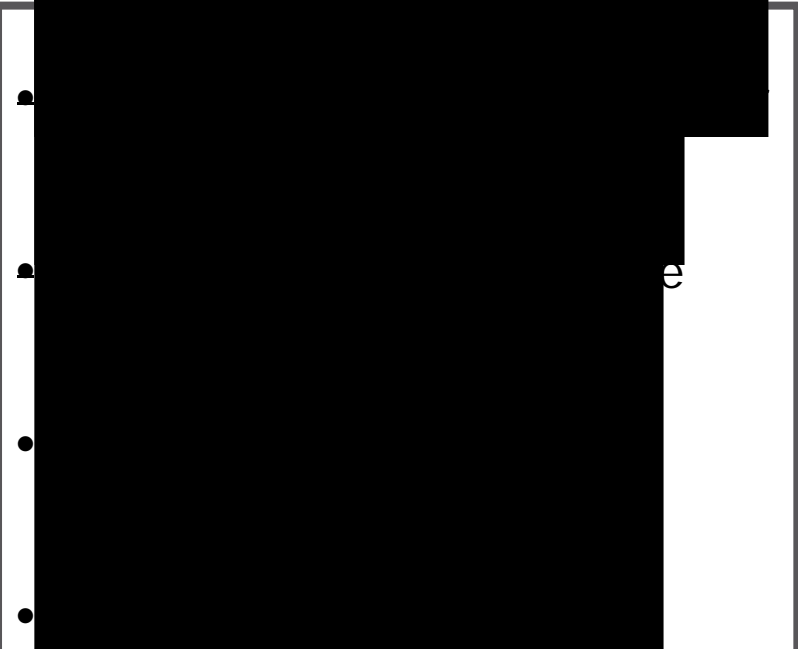
- Choose a card



- Tap again with your finger on Touch ID



- Put away your smartphone



- Put away your smartphone





Hands-free
& Open technology
& Certification
& With any device



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