



MOBILE EATS THE WORLD: DETECTING AND PREVENTING MOBILE FRAUD

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RSA

Piazza San Pietro - 2005

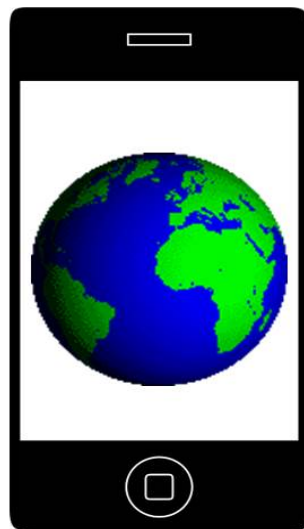


Piazza San Pietro - 2013



Move to mobile

- ▶ Smartphones are now the dominant *computer* for the entire world. Not just the developed world.



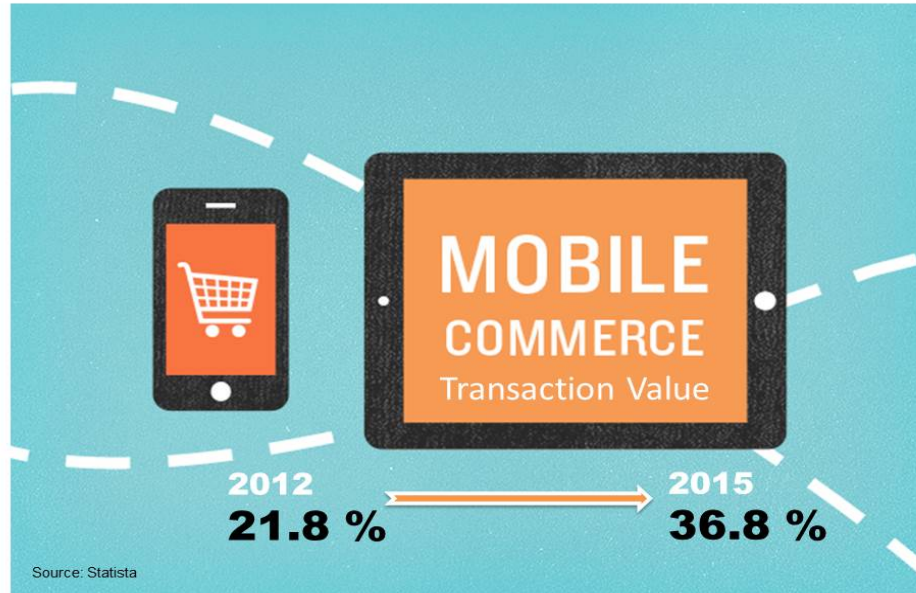
Mobile Eats The World

By 2020 80 percent of adults on earth will have a smartphone

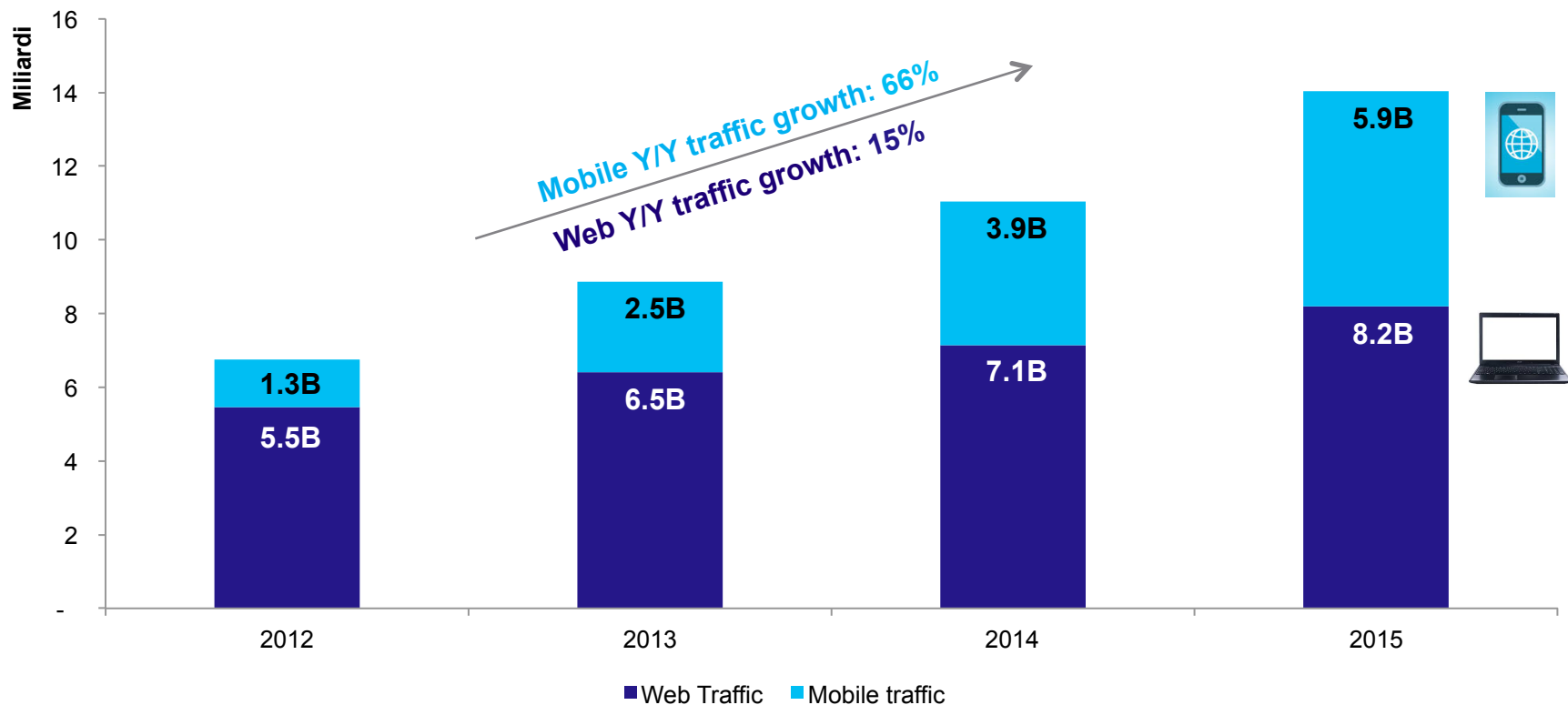
Source GSMA

Move to mobile

- ▶ Mobile increasing transaction volume and value vs web channel
- ▶ Not just e-commerce: banking, healthcare, enterprise, travel, ...

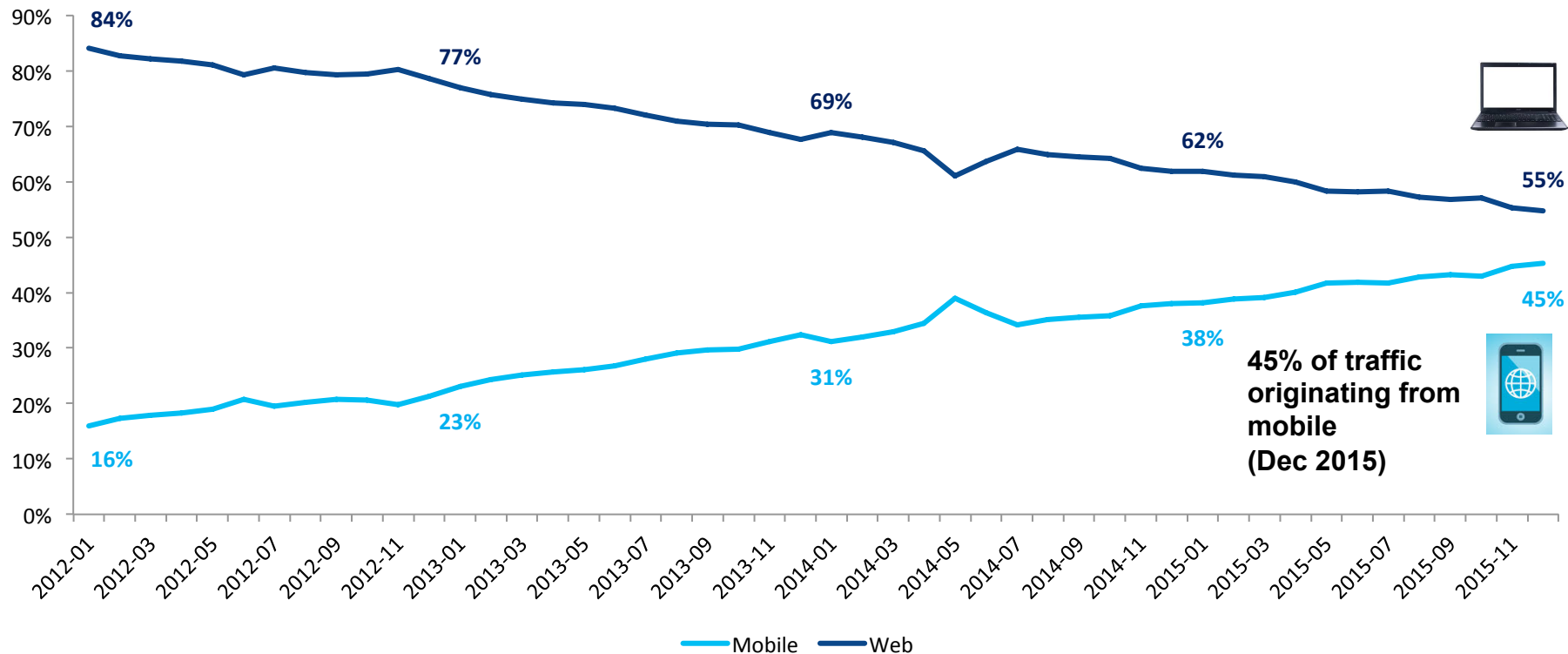


Web vs. Mobile Y/Y Traffic Growth



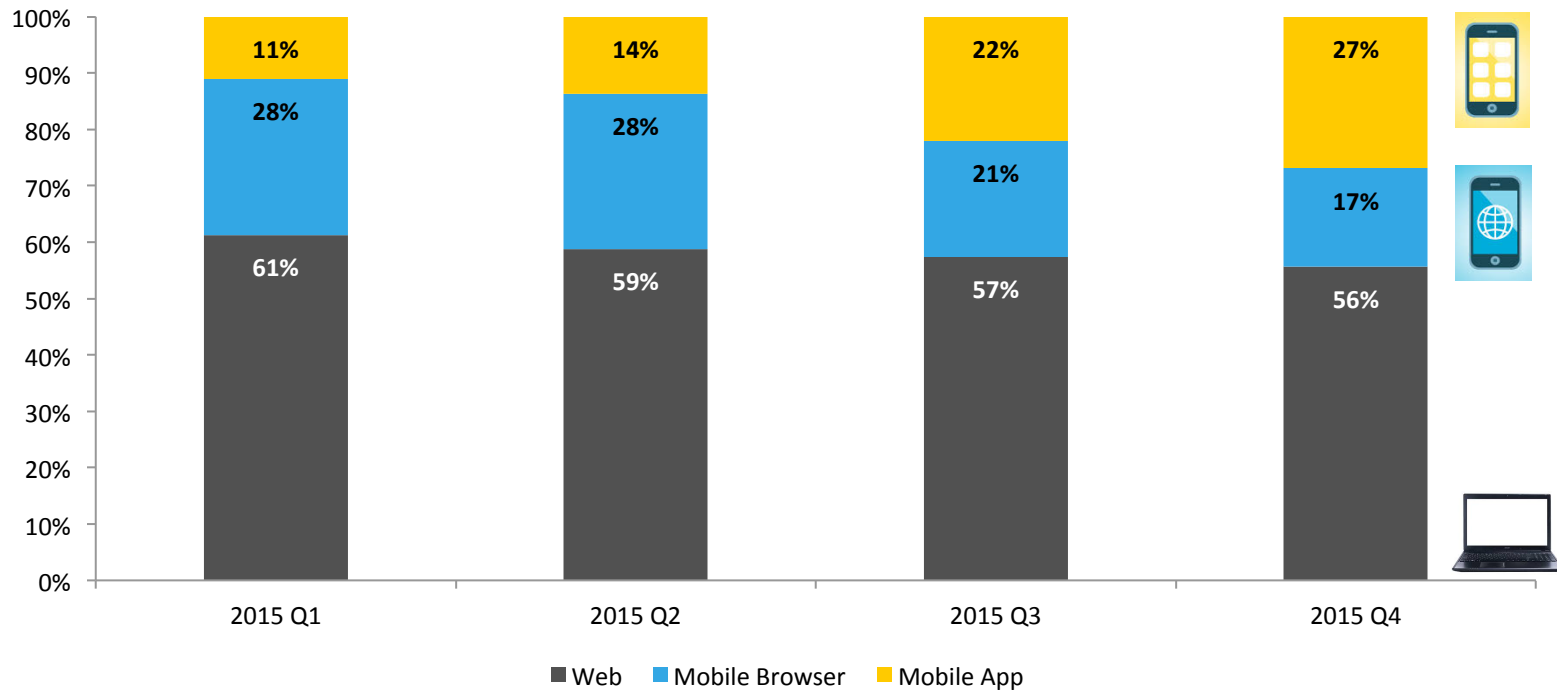
Source: RSA Adaptive Authentication Hosted

Web vs. Mobile Traffic Distribution: 2012 – 2015



Web vs. Mobile Browsing & App Traffic: 2015

Rise of the apps, decline of browsers.



Source: RSA Adaptive Authentication Hosted

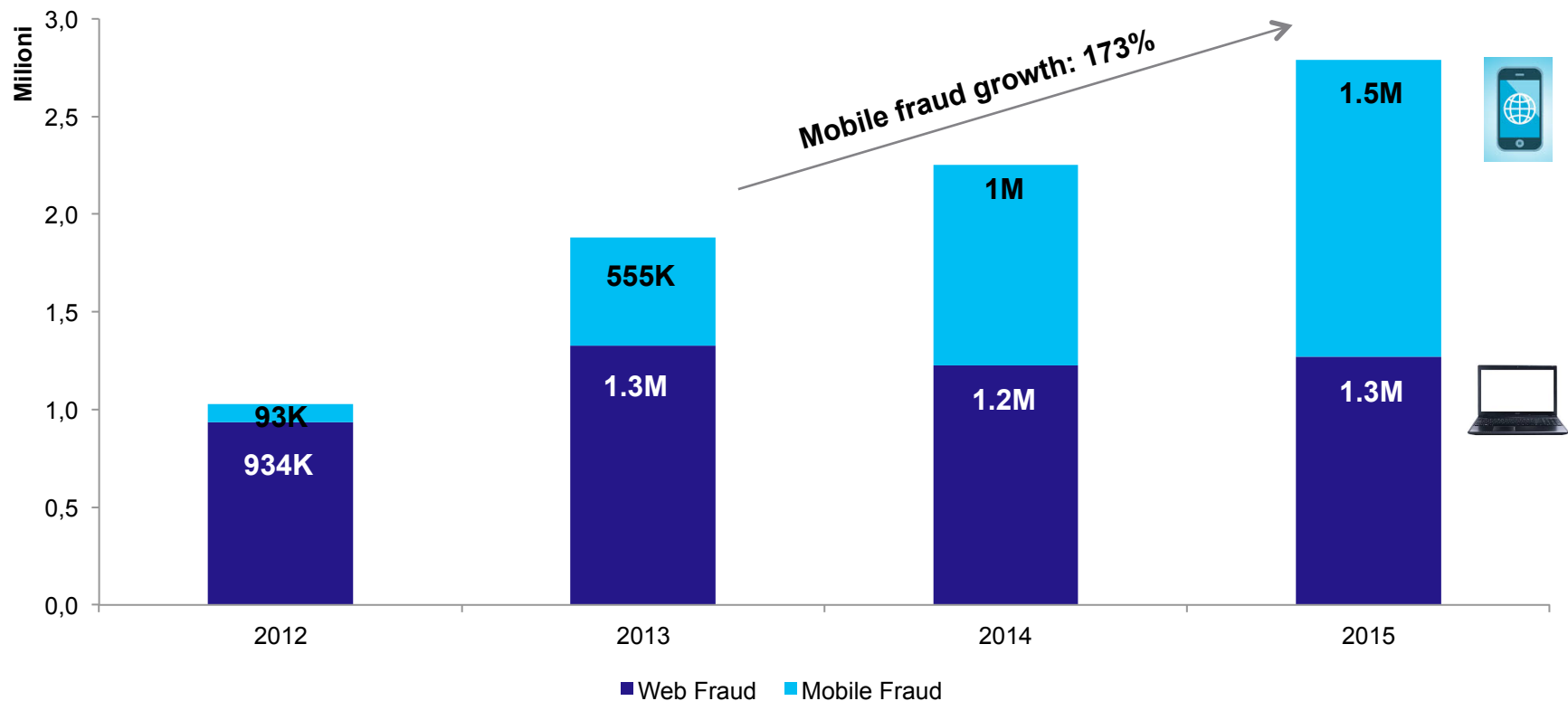


Mobile Fraud

- Rise of financial fraud originating from the mobile channel



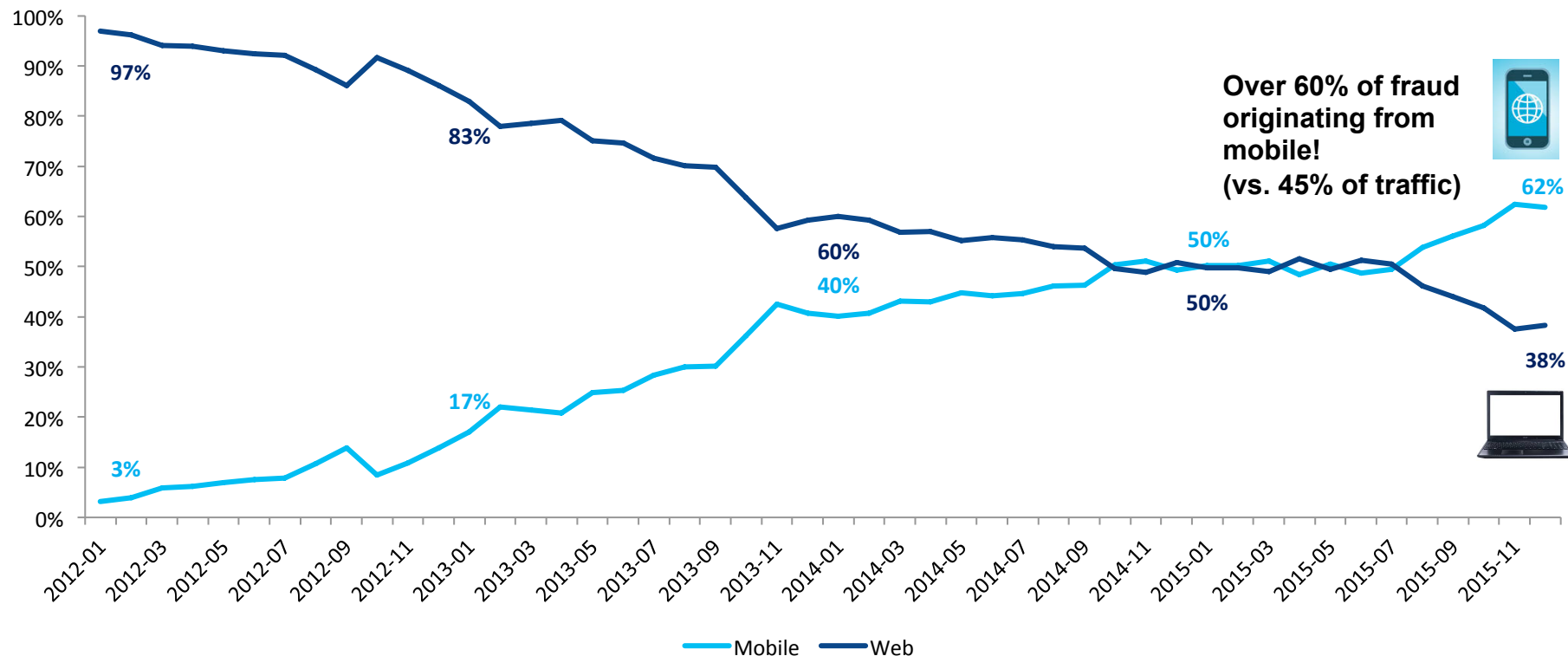
Web vs. Mobile Y/Y Fraud Growth



Source: RSA Adaptive Authentication Hosted



Web vs. Mobile Fraud Distribution: 2012 – 2015



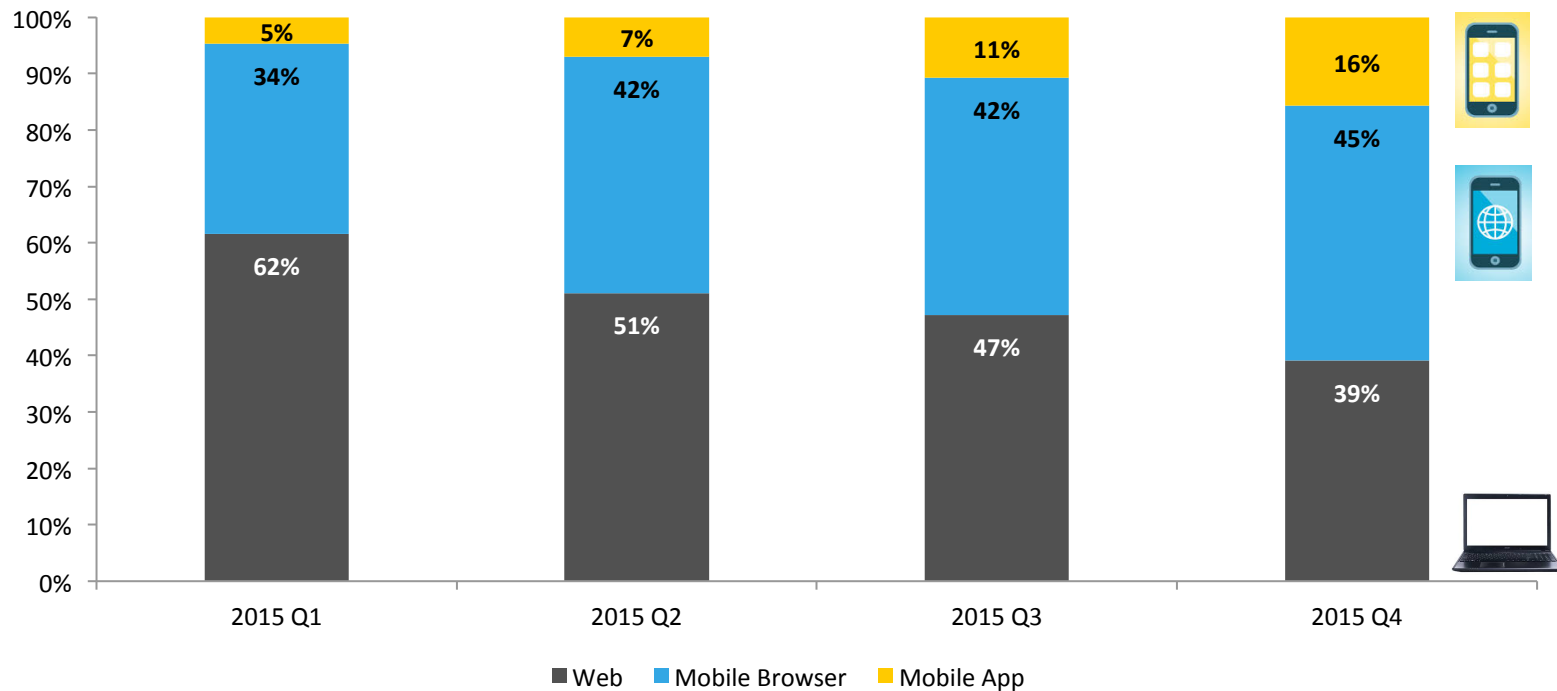
Source: RSA Adaptive Authentication Hosted



Web vs. Mobile Browsing & App Fraud: 2015

Most fraud coming from Mobile Browsing

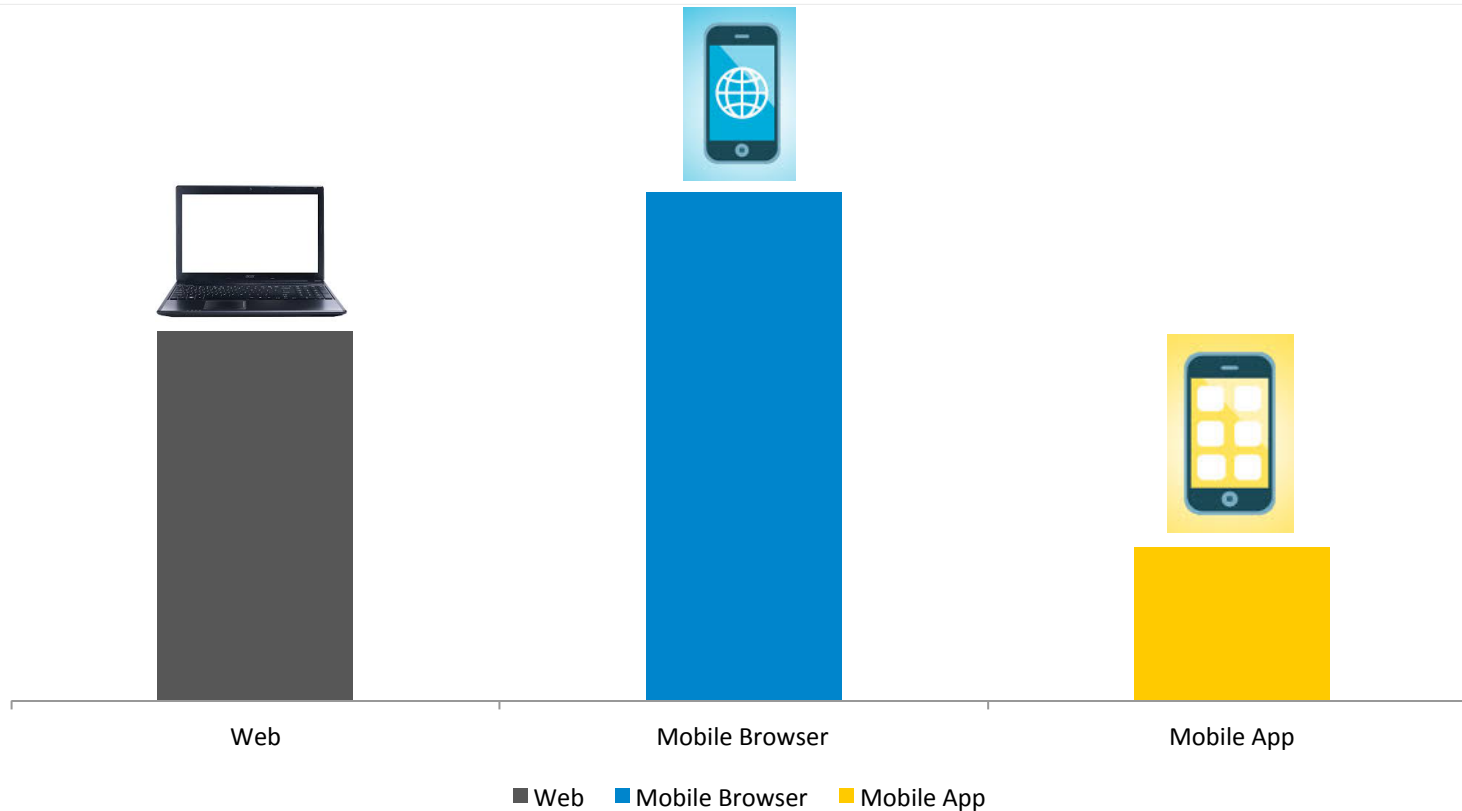
Mobile App fraud growing fast!



Source: RSA Adaptive Authentication Hosted



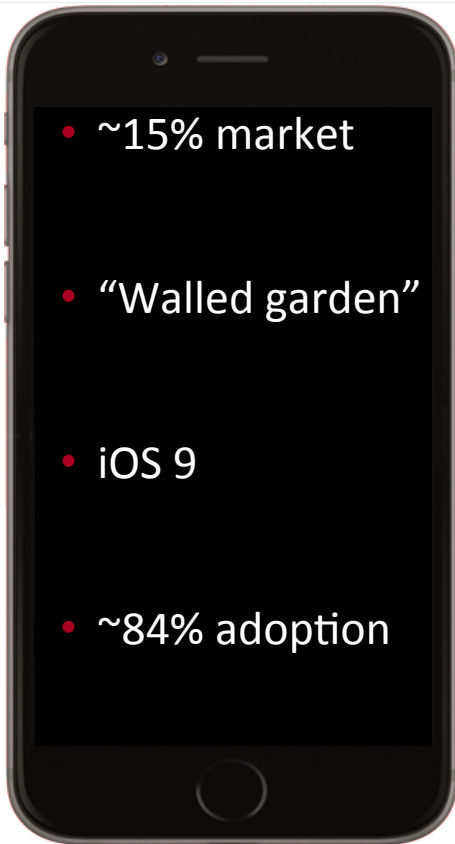
Mobile Web Fraud is the winner. For now...



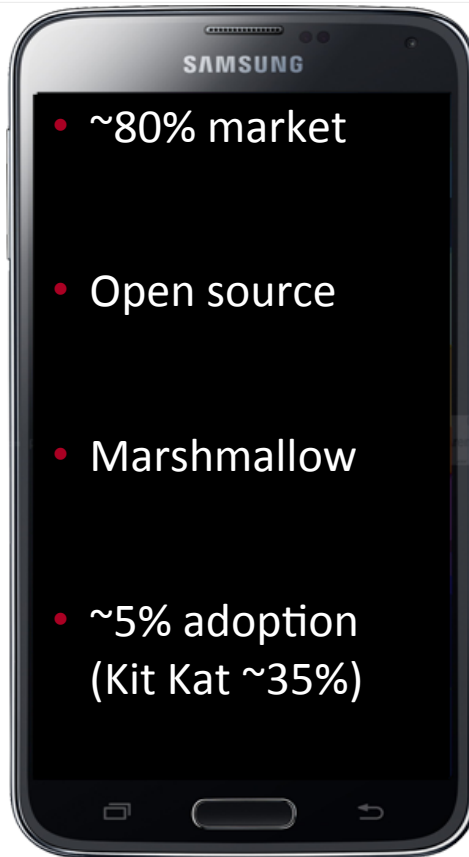
Platform wars....



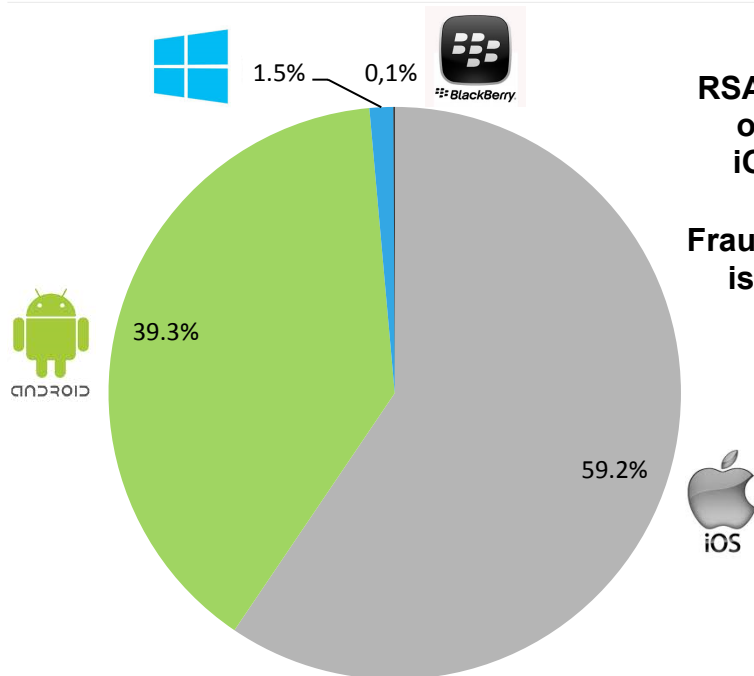
- ~15% market
- “Walled garden”
- iOS 9
- ~84% adoption



- ~80% market
- Open source
- Marshmallow
- ~5% adoption
(Kit Kat ~35%)

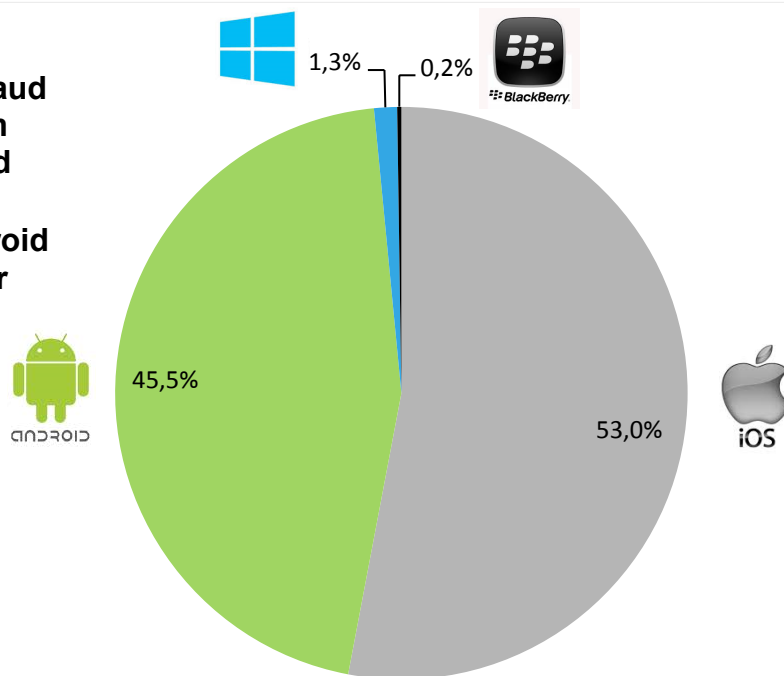


Mobile Traffic by OS



■ iOS ■ Android ■ WindowsPhone ■ BlackBerry

Mobile Fraud by OS



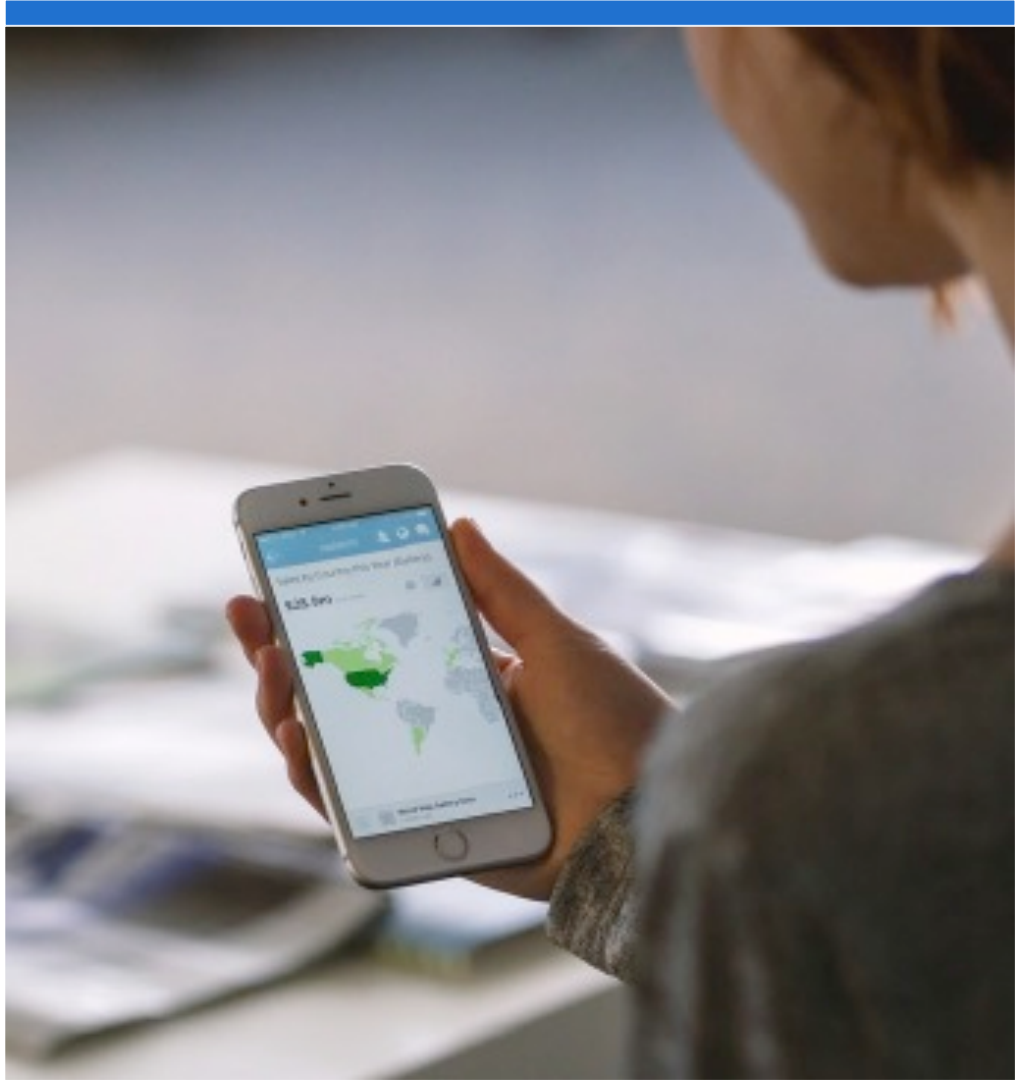
■ iOS ■ Android ■ WindowsPhone ■ BlackBerry

**RSA sees more fraud
originating from
iOS and Android**

**Fraud Rate in Android
is slightly higher**

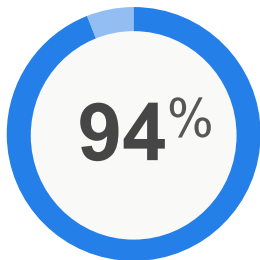
Mobile Anti-Fraud Strategies

- ▶ Risk based approach, device identification and analysis, multi-channel correlation
- ▶ Mobile authentication to secure mobile channel & other channels (online web banking, eCommerce)
- ▶ Biometric authentication is the trend for strong user authentication on mobile
- ▶ Don't forget customer convenience!



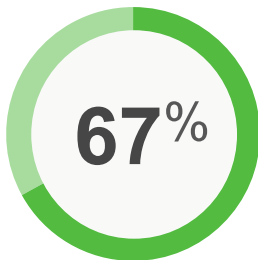
Biometrics Authentication

What are the top considerations for your organization in exploring biometrics as an authentication option?



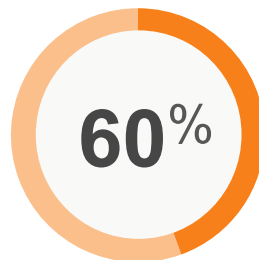
Exploring

Currently or plan to explore biometrics in the next 6 – 12 months



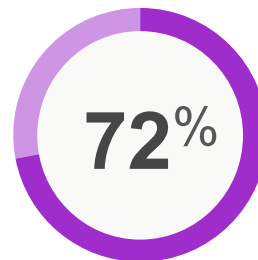
Options

Organizations considering voice authentication options



Options

Organizations considering behavioral biometrics (force of touch, speed, etc)

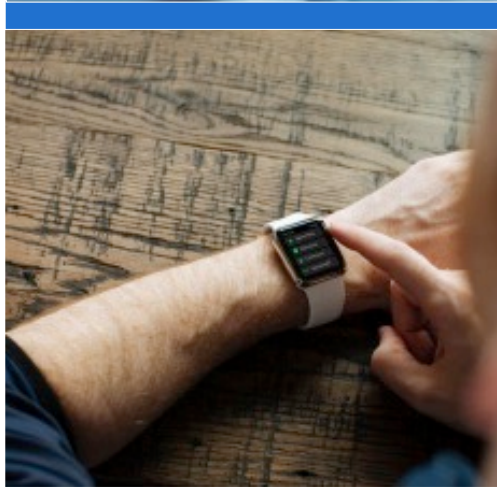


Consumers

Consumers who find biometrics an acceptable way for banks to authenticate them

Payment Services Directive II

- ▶ **Strong customer authentication**
- ▶ **Need two of:**
 - ▶ Knowledge: “something you know”
 - ▶ Possession: “something you have”
 - ▶ Inherence: “something you are”
(Article 4.30)
- ▶ **When:**
 - ▶ Accessing payment accounts online
 - ▶ Initiating electronic payments
 - ▶ Remote channel activities with a risk of payment fraud.
(Article 97.1)



Payment Services Directive II

- ▶ **Transaction amount and payee linked to strong authentication.**
(Article 97.2)
- ▶ **Exemption for strong authentication based on the level risk.**
(Article 98.3.a)
- ▶ **Better consumer experience:**
“User-friendly, accessible and innovative means of payment”
(Article 98.2.e)



Cybercrime Evolves – So Must the Response

RSA | Adaptive Authentication

Multifactor Risk-based Authentication at Login



Login

Transaction

Multi-channel:

- Web
- Mobile

Cybercrime Evolves – So Must the Response

RSA | Adaptive Authentication

Multifactor Risk-based Authentication Post-Login

Multifactor Risk-based Authentication at Login



Login



Transaction

Activity Examples:

- Login
- Bill payment
- Money Transfer
- Password change
- PIN request
- View statement
- New card request
- New Payee Addition
- Address change
- many more...

Cybercrime Evolves – So Must the Response

RSA | Adaptive Authentication

Step-up Authentication – Out of Band

Multifactor Risk-based Authentication Post-Login

Multifactor Risk-based Authentication at Login



Login Transaction

Step-up Examples:

- SMS
- Phone call
- Biometrics
 - Fingerprint
 - EyePrint
- Multi-Credential Framework:
 - 3rd party tokens
 - 3rd party biometrics

Cybercrime Evolves – So Must the Response

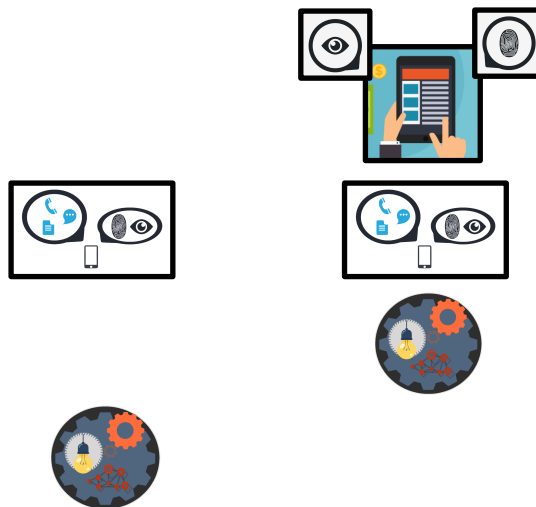
RSA Adaptive Authentication

Transaction Signing + Biometric Step-up

Step-up Authentication – Out of Band

Multifactor Risk-based Authentication Post-Login

Multifactor Risk-based Authentication at Login



Login Transaction

Mobile Biometric Step-up

RSA | Adaptive Authentication

No SIM 2:32 PM

RSA Bank

Tap Approve to confirm transaction details

Payee name
Jessica Rabbit

Payee account number
02156846

Payee sort code
40-06-12

From account
Current Account

Amount
\$50.00

Payment date
4 August 2015

[Reject](#)

[Approve](#)

No SIM 2:32 PM




RSA Bank

Fingerprint

Confirm your identity to process your transaction

[Authenticate](#)


[Cancel](#)

KPN NL 09:28 95%

Fingerprint



Confirm your identity to process your transaction



Touch ID for "rsabank"
Fingerprint required

[Cancel](#)

[Cancel](#)


 


18:43

Authenticate

[FINGERPRINT](#) [EYE](#) [VOICE](#)

Confirm your identity to process your transaction

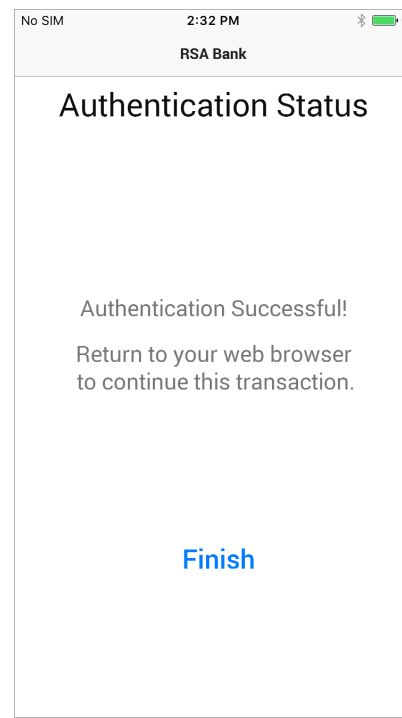
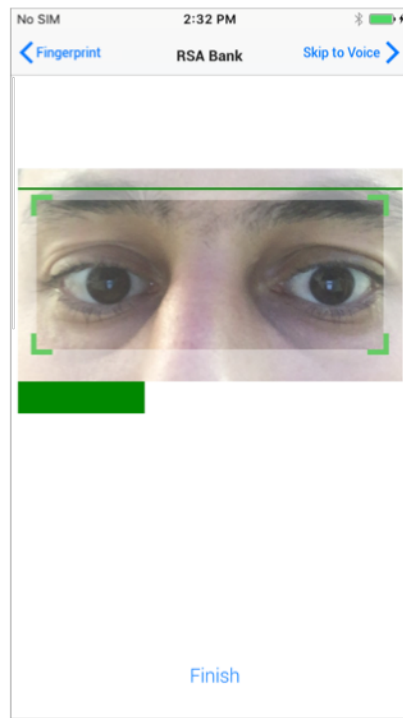
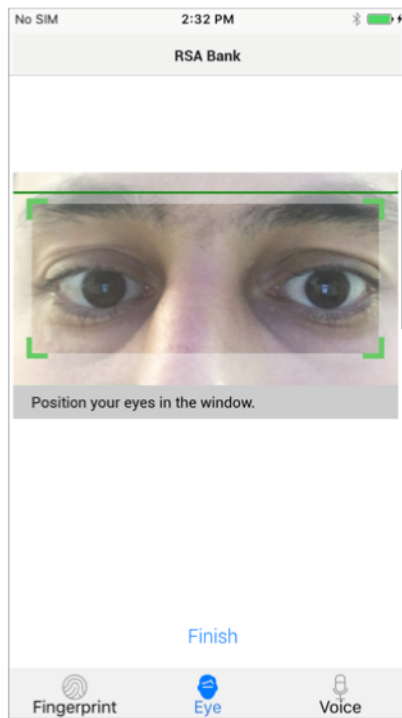
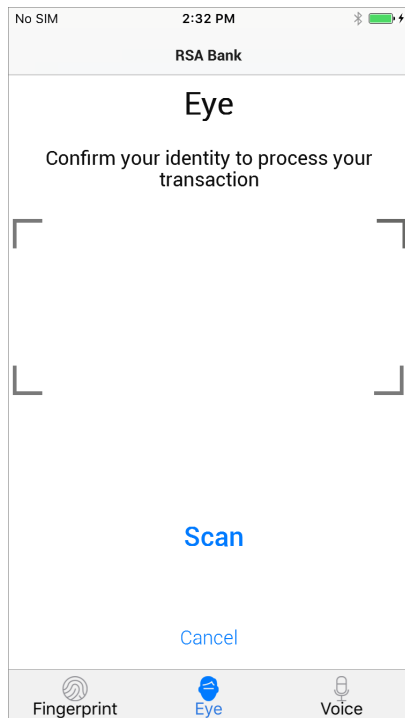




RSA

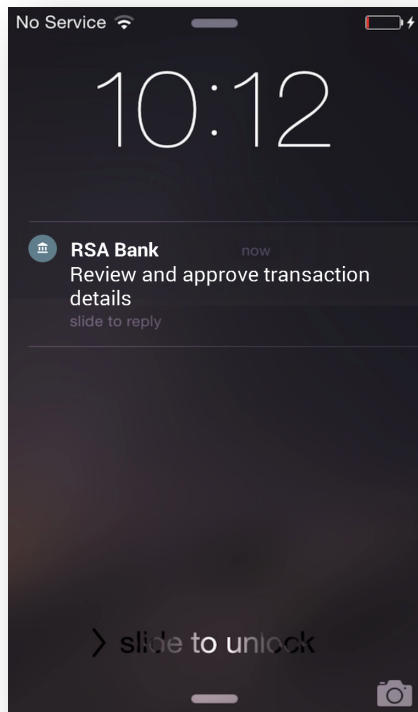
Mobile Biometric Step-up

RSA | Adaptive Authentication



Mobile Transaction Signing

RSA | Adaptive Authentication



No SIM 2:32 PM

RSA Bank

Transaction Details

Complete the form with information from your web browser and tap SUBMIT

Payee name
Jessica Rabbit

Payee account number

Payee sort code
40-06-12

From account
Current Account

Amount

Payment date
4 August 2015

No SIM 2:32 PM

RSA Bank

Transaction Details

Complete the form with information from your web browser and tap SUBMIT

Payee name
Jessica Rabbit

Payee account number
Provide a value

Payee sort code
40-06-12

From account
Current Account

Amount
Provide a value

Payment date
4 August 2015

No SIM 2:32 PM

RSA Bank

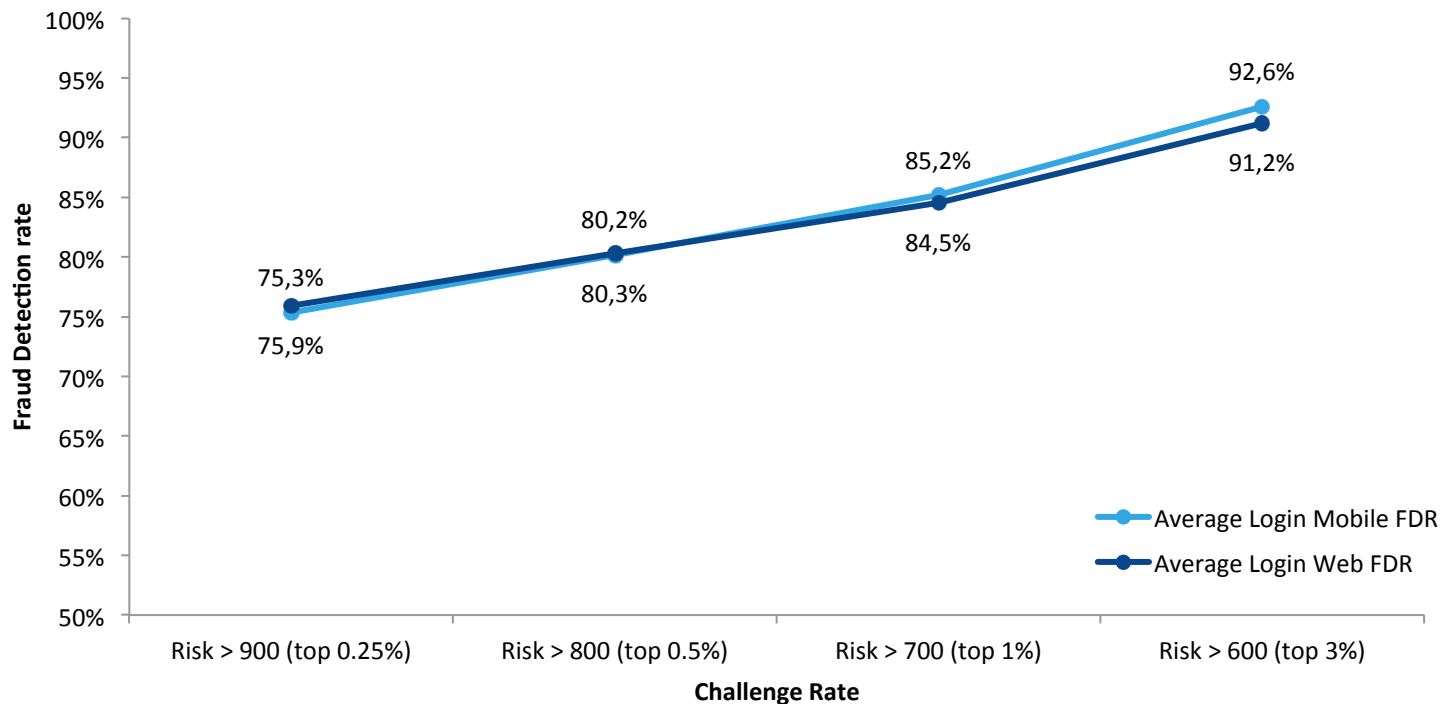
Transaction Details

Transaction Verified!

Return to your web browser to continue this transaction.

Finish

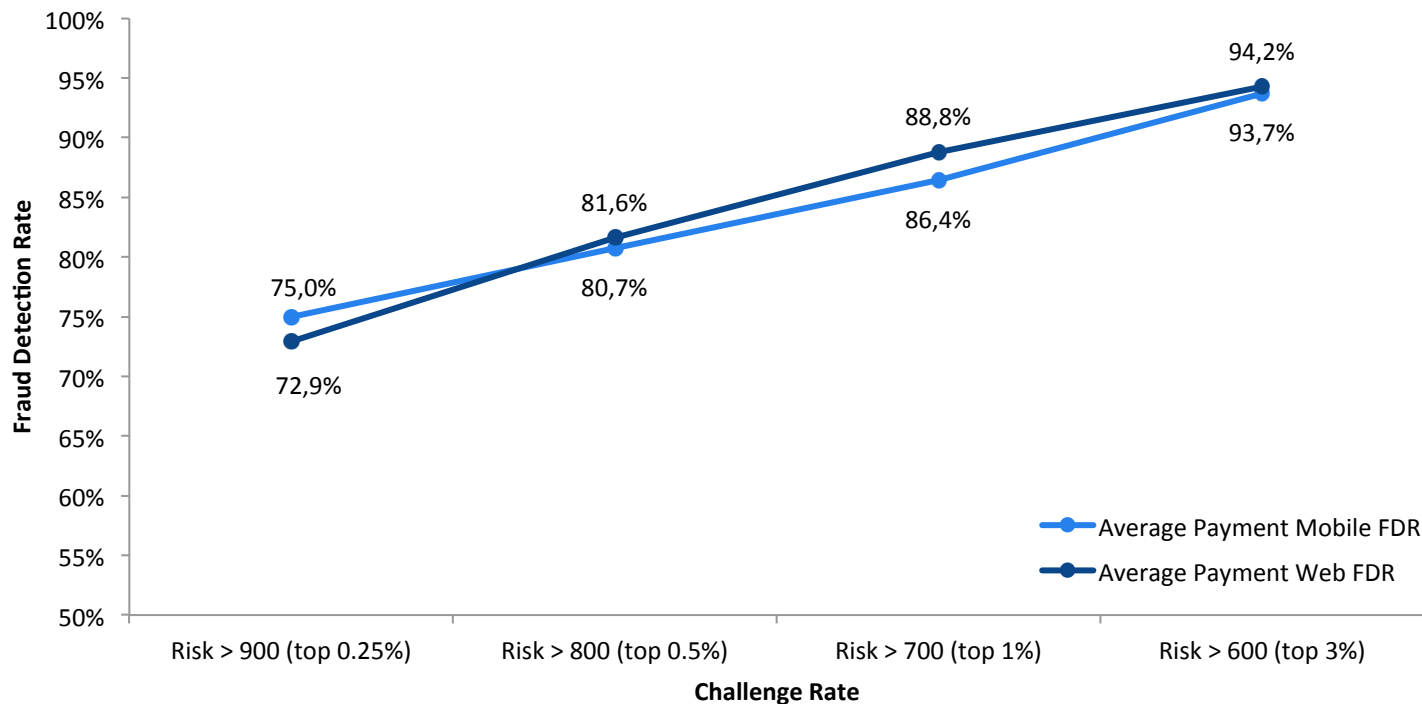
RSA Login Fraud Detection Rate: Web & Mobile



Source: RSA Adaptive Authentication Hosted



RSA Payment Fraud Detection Rate: Web & Mobile



Source: RSA Adaptive Authentication Hosted



RSA Fraud & Risk Intelligence

- ▶ Risk assessment
- ▶ Behavior profiles
- ▶ Device Fingerprinting & IDs
- ▶ Self learning risk engine
- ▶ Global intelligence
- ▶ Mobile Biometrics
- ▶ Mobile Transaction Signing
- ▶ Market leading fraud detection
- ▶ Customer convenience

RSA | Adaptive Authentication

RSA | Adaptive Authentication
For eCommerce

RSA | Web Threat Detection

RSA | Fraud Action

RSA | **FRI**
THANK YOU

 @RSAFraud

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RSA