CONTROLLING YOUR BANKING AND PAYMENT SYSTEMS

TOP SECURITY MEASURES

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eBANKING & ATM/POS SYSTEMS

ATM NETWORKS

PSTN / WIFI

WEB SERVER

IVR /BIOMETRICS

ATM / EFTPOS

CARDS/M-APPS

INTERNET

VISA MasterCard

AUTHENTICATION

VERIFICATION

AUTHORISATION

CORE BANKING SYSTEM

WHY WE NEED CRYPTOGRAPHY

The only known practical means of protecting data in a communications network.

System security tool for online banking, payments e-commerce and m-commerce to achieve:

a) confidentiality
b) integrity
c) authentication
d) digital signature

No password is secure regardless of its complexity, length and change frequency.
P@$$w0rd Hacking

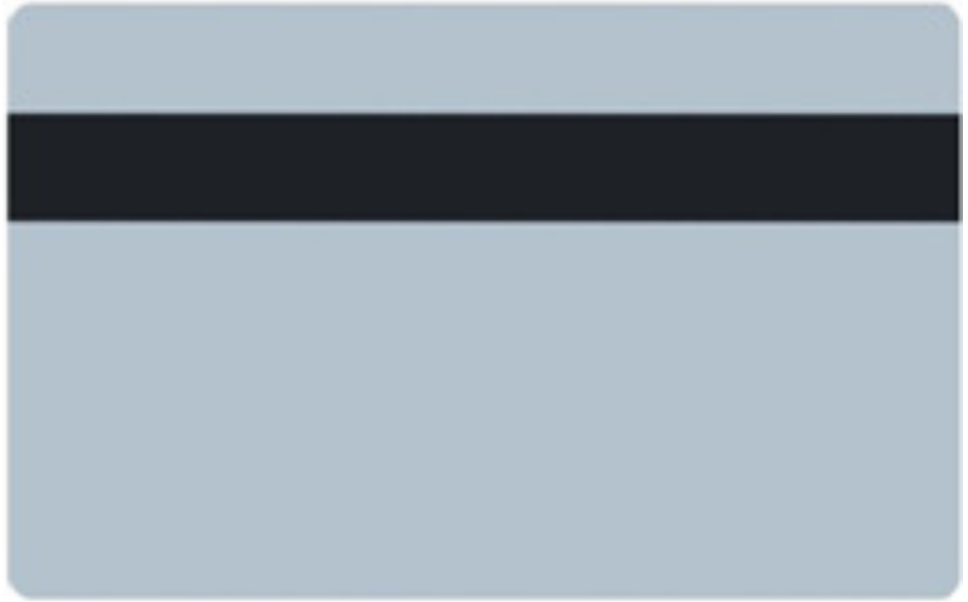
HOW MASSIVE IS PAYMENT CARD FRAUD?
What is the role of cryptographic security?

Platinum
4321 5678 9012 1234
VALID DATES
08/98 - 08/31/00
JOSEPH SMITH
System Number
Bank Number
Account Number
Check Digit

ANATOMY OF A MAGNETIC STRIPE

; nnnn nnnn nnnn nnnn = YYMM SVC DDDDDDDD*CVV* X

Start	Card Number	Separator	Expiry Date	Service Code	Discretionary	End



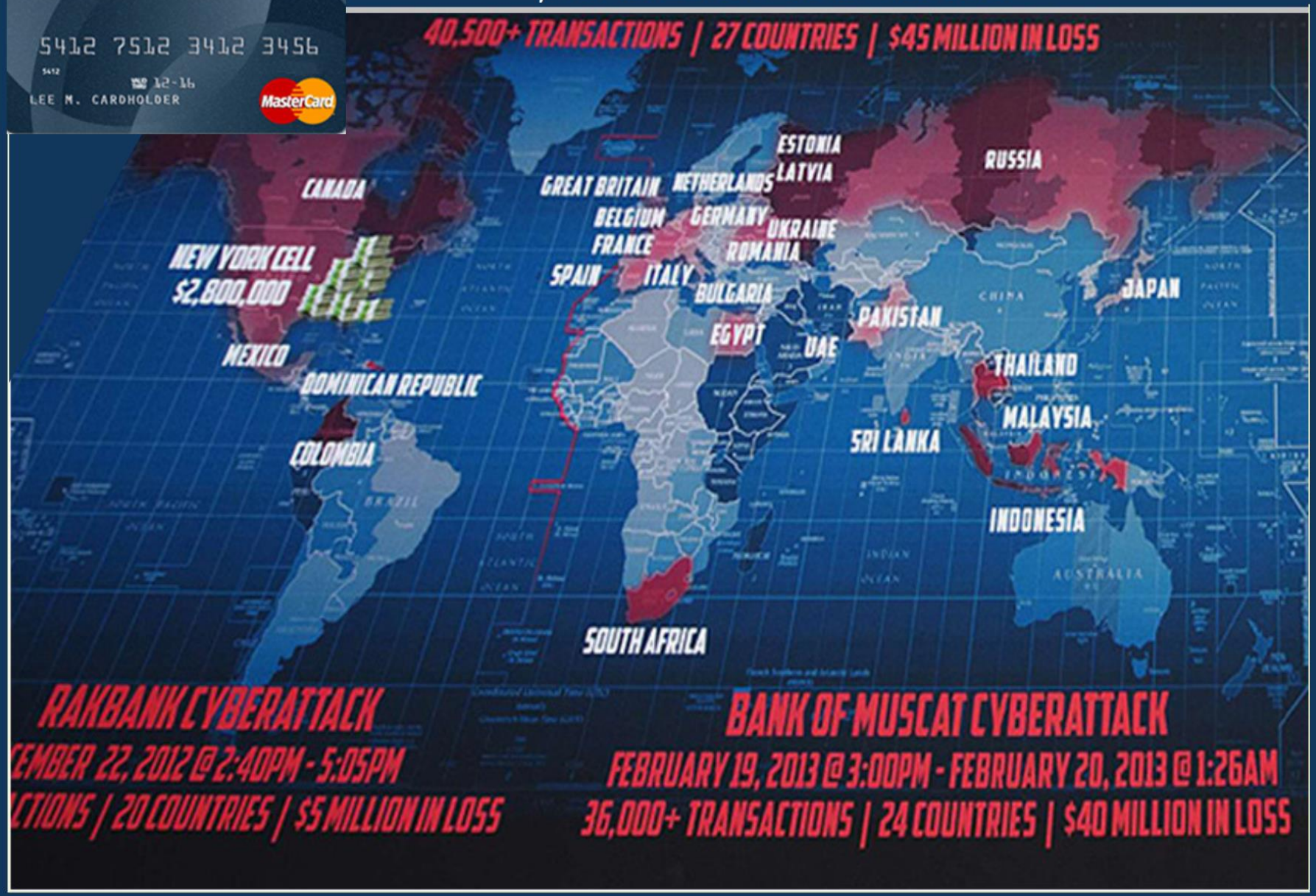
THE ACHILLES HEEL OF PAYMENT CARD SECURITY

CHIP AND MAGNETIC STRIPE

The chip cannot be cloned

The magstripe is easily cloned

$45 MILLION ATM HEISTS



Note: acquiring bank layer is not shown

MasterCard
BANKNET

Cirrus

Note: acquiring bank layer is not shown

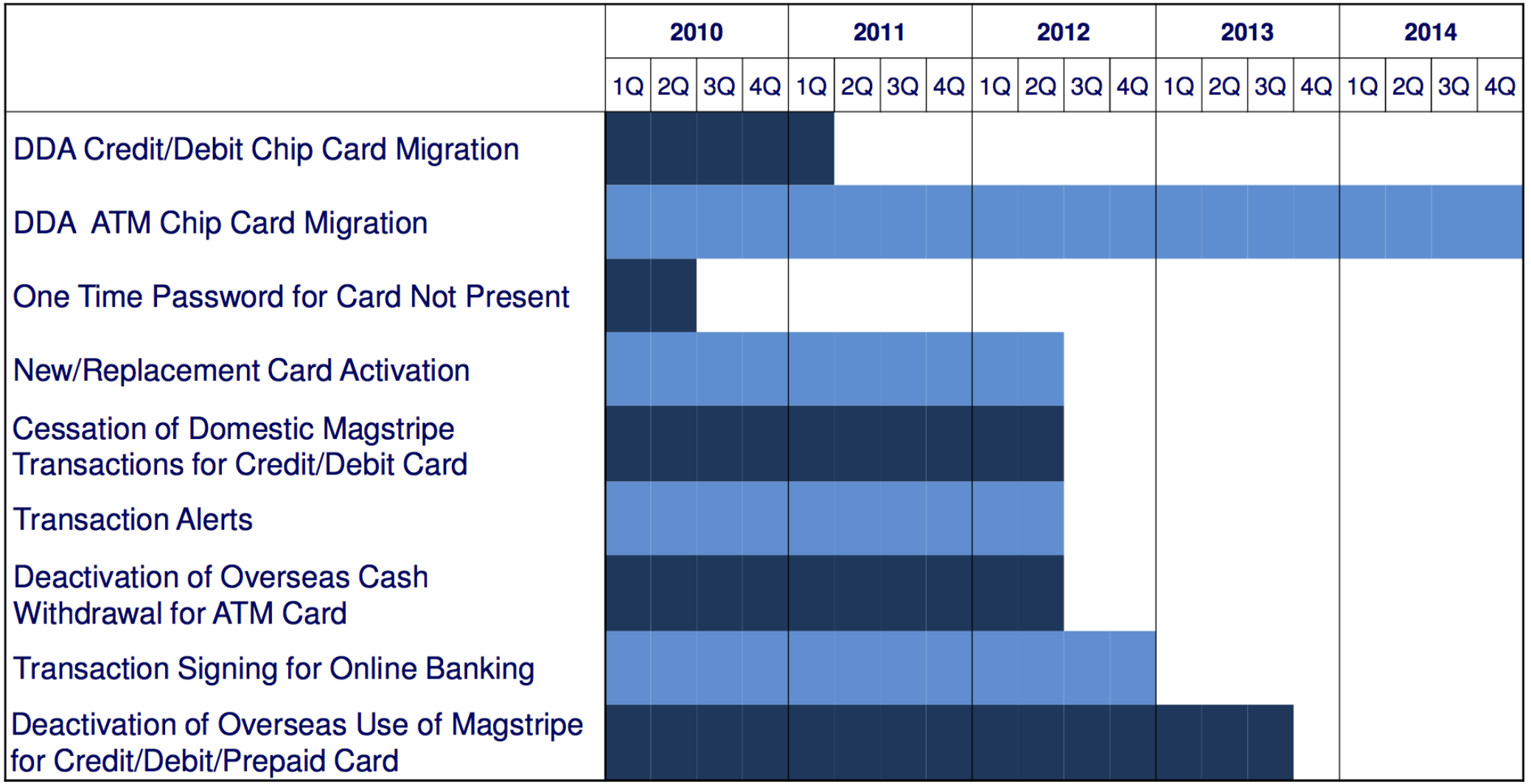
$5M

ecs
an Opus company

$40M

enStage
Global Payments. Secure. Simple.

MAS Payment Card and Online Banking Security Enhancement Roadmap



DDA: Dynamic Data Authentication ATM: Automated Teller Machine

Mobile App Security

Device Binding

Jailbreak and Root Detection

Device encryption

Secure Storage

Push Notification

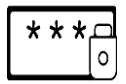
Geolocation Fencing

Face Authentication

Voice Authentication

Fingerprint Authentication

Iris Authentication



One-Time Password Authentication

Transaction Signing

The Future of Digital Security

The future of digital banking is mobile banking based on the omnipresent smartphone

The future of digital security for mobile banking and payments is biometrics

Together, the smartphone and biometrics will change the way we do banking and payments

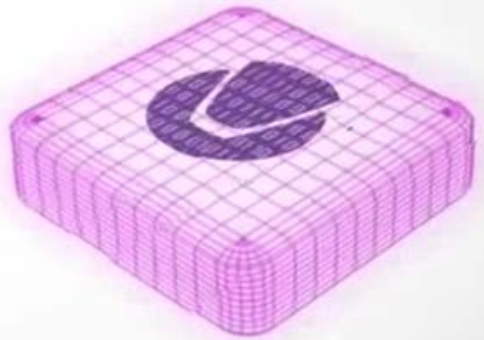
V-OS

THE WORLD'S FIRST
VIRTUAL SMART-CARD CHIP

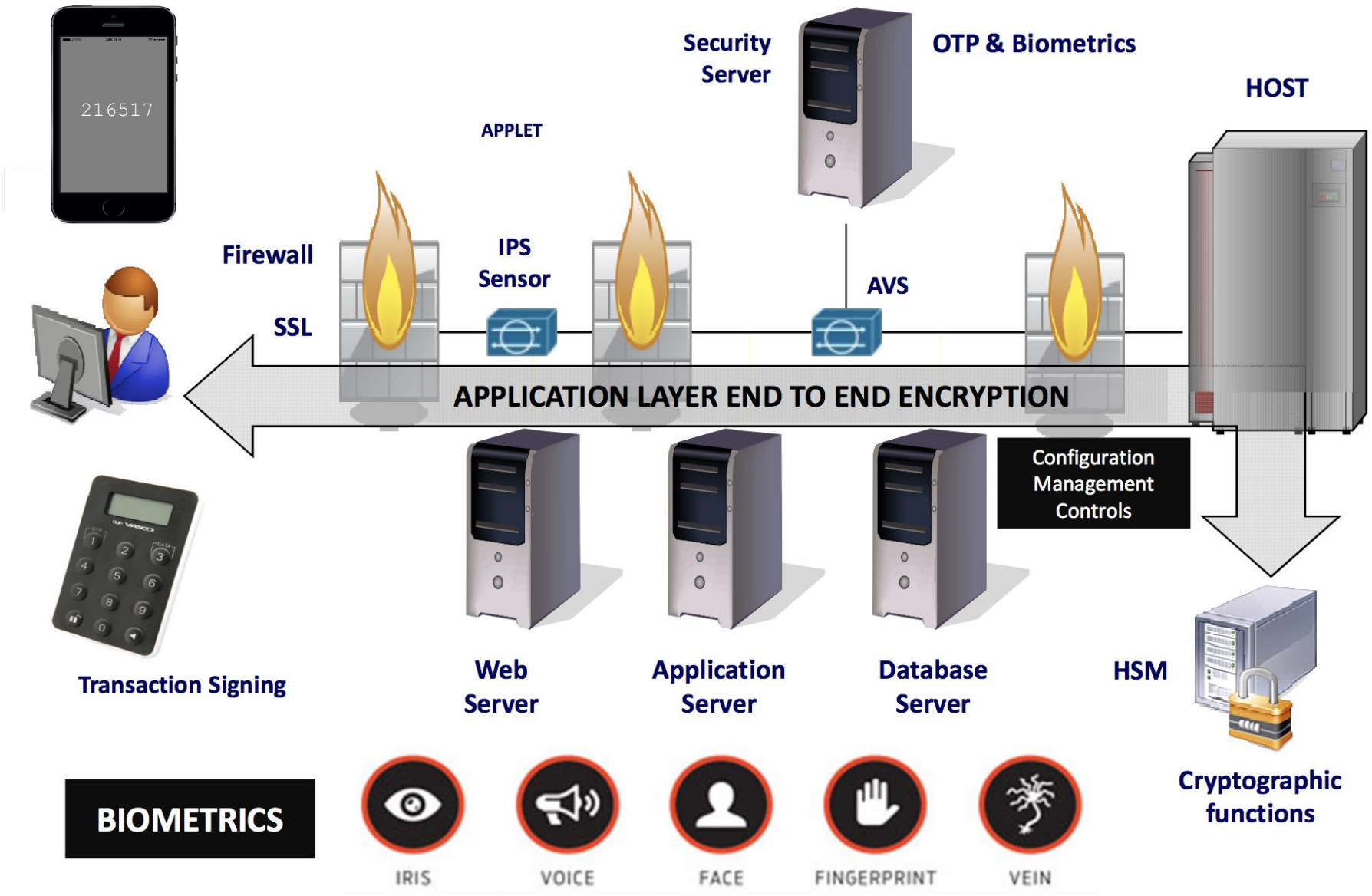
FIPS 140-2

Accredited

Trusted. Certified.



ONLINE BANKING SECURITY ARCHITECTURE



BIOMETRICS

Deployment of Biometrics in Banking

Finger Vein

Palm Vein

Voice

Fingerprint

Face

Thank You

For any enquiries, please contact us at enquiries@v-key.com