Seizing the mPOS opportunity

› *How to ace functional & security certification*

Mobile point-of-sale

(noun). a device which can be connected to a smartphone or tablet and enables the user to accept a card or mobile contactless payment. Abbrev: **mPOS**

Two factors are shaping the mPOS industry

› MARKET EVOLUTION

Global increase in card and mobile payments: contactless payments market is set to be worth **$9.88bn** by 2018.①

The burden of cash on national economies is substantial, representing as much as 1.5% of GDP.②

Consumers now expect merchants to accept card and mobile payments:

69% of consumers aged between 18-34

58% of consumers aged between 35-44

would only shop at businesses that accept multiple forms of payment.④

In Belgium, for example, **93%** of the value of consumer spend is cashless.③

› VERSATILITY

The flexibility afforded by mPOS means that it can be utilised by sole traders such as taxi drivers and hairdressers.

Also used by larger retailers to offer a more flexible consumer experience.

With EMV migration and the rise of contactless payments, mPOS is seen as an affordable way for companies to adopt a contactless POS infrastructure.

The mPOS opportunity

mPOS to grow by **400%** in four years ⑤

Installed base set to hit **54 million** units by 2019 ⑥

Shipments to continue to grow at a CAGR of **40%** between 2013 and 2018 ⑦

52 million units expected to be shipped worldwide in 2019 ⑧

mPOS to make up **46%** of all POS terminals in 2019 ⑨

Market estimated to be worth **$43 billion** by 2018 ⑩

mPOS challenges

› TECHNICAL

Complexity

All the components of an mPOS terminal can be disparate; this includes the user interface, software kernel, PIN pad, card reader, as well as the mobile device itself.

Security

Smartphone technology is constantly active and connected through 3G or 4G networks, making it vulnerable to malware threats and targeted attacks.

Functionality

There are many industry standards that need to be adhered to and key requirements from the payment systems that need to be implemented.

› MARKET

Volume

Bringing a payment terminal to market is expensive, and the economic realities of the mPOS industry mean that the margin per unit can be small.

Industries colliding

mPOS brings together two industries with completely contrasting product lifecycles. On the one hand, the development of traditional POS infrastructure is slow and protracted. On the other hand, mobile device development is rapid.

Overcoming mPOS challenges

Think about security from day one

It is vital that manufacturers fully understand the security requirements and apply this knowledge to every stage of the product development process.

Know your volumes

Manufacturers must carefully forecast how many units they will sell during the six to ten year certification period in order to ensure their solution is commercially viable.

Understand the market dynamics

Solutions must be brought to market quickly enough to ensure they connect to the latest mobile technology, without compromising security and functionality.

Be future-proof

It is crucial that manufacturers stay agile and do not over-engineer their solutions so that they can quickly react and adapt to technological developments within the mPOS ecosystem.

Get the knowledge

It is imperative that manufacturers are aware of the testing and certification process.

Identify functional requirements

Functional testing is an integral part of the development stage as mPOS terminals must align with EMV Level 1 and Level 2 contact specifications (and other contactless specifications if required).

5 steps to testing success

Before an mPOS terminal product can be launched, manufacturers must prove that it is fit-for-purpose, or risk the long delays and major costs commonly associated with re-engineering their product

1 Scoping

This is undertaken to assess which security requirements are applicable to the device.

2 Pre-assessment

This phase is designed to review all of the documentation in order to evaluate the device's security during the development phase.

3 Level 1 testing

This process tests the interface between the terminal and the card, including all the electrical and digital components.

4 Security evaluation

Undertaken by a PCI SSC accredited laboratory, this includes a documentation review, source code review, penetration testing and an estimation of the hardware and software's resistance to attacks.

5 Level 2 testing

This stage validates the functionality of the software kernel to ensure the terminal exchanges the correct messages, such as transaction amount and PIN verification.

① https://marketpublishers.com/lists/16828/news.html)https://marketpublishers.com/lists/16828/news.html
② http://www.mastercardadvisors.com/cashlessjourney/
③ http://newsroom.mastercard.com/press-releases/mastercard-study-reveals-the-rapidly-growing-cashless-economies/
④ http://communitymerchantsusa.com/resources/the-benefits-of-small-business-card-acceptance/
⑤ http://paymentssource.com/news/retail-acquiring/mobile-point-of-sale-to-grow-400-in-four-years-report-3021997-1.html
⑥ http://www.paymentscardsandmobile.com/global-mpos-installed-base-to-quadruple-to-54-million-units/
⑦ http://www.smartinsights.net/Smart-Insights-Reports/mPOS-Expansion-Shakes-the-Point-of-Sale-Industry
⑧ ibid.
⑨ https://www.abiresearch.com/press/mpos-to-make-up-46-of-all-pos-terminals-in-circula/
⑩ http://vsr.edgl.com/reseller-news/mPOS-Terminals-Market-To-Reach-$42-99-Billion-By-2022101257