

Mobile Point of Sale Solutions: 2019 Easy and Secure Methods



Mobile Wallets Taking Over –

In 2019, the total number of consumers worldwide using mobile wallets is expected to rise to more than 2 billion individuals¹. NFC, Contactless, and Smartcard payments continue to increase their already dominant percentage of all consumer transactions². The crux of it all is that consumers are carrying less cash – and expect to perform transactions electronically more and more frequently. This has benefits and drawbacks for retailers, who can begin to abandon more bulky registers and cash receptacles and get points of sale where they can have the greatest effect, but must find solutions to accept new payment methods.

What are the key mobile payment solutions for the coming decade? Which technologies will prove to be essential, that can be implemented now?

Defining Mobile Payment vs Mobile Point of Sale

A critical distinction when discussing mobile payment solutions is the difference between retail transactions being logged, recorded, and processed on a mobile device (Mobile point of sale), and utilizing a mobile device, such as a smartphone, to make payments for retail transactions. These two technologies often intersect, but are not the same thing. For instance, some retailers now have QR Code scanning devices at their stationary registers for interacting with smartphone apps, which constitutes a mobile payment solution but NOT a mobile point of sale solution. A secure tablet with an EMV (smartcard) reader and PIN-on-Glass security constitutes a mobile point of sale solution but NOT a mobile payment solution. A tablet like the above that can accept payment information from a smartphone via NFC (Near Field Communication) represents both.



In order to select the proper technology for any business, it is important to ask how the business operates and how the typical customer prefers to interact. A café, for instance, typically features a stationary order/payment area, and a mobile point of sale platform isn't necessary – but accepting a wide variety of quick-pay options is. A restaurant or food truck could have a stationary point of sale, but a mobile point of sale system offers convenience for customers and increased opportunities for sales for retailers.

Bearing the above in mind, this whitepaper will examine some of the top features for mobile point of sale systems for 2019, and how they can benefit consumers and retailers.

¹ <https://www.mobilepaymentstoday.com/news/study-21b-consumers-worldwide-set-to-use-a-mobile-wallet-in-2019/>

² <https://www.pymnts.com/news/payments-innovation/2018/chip-card-smart-payment-association/>

Wireless Card Processing

Most Mobile PoS systems are offered by companies producing the Mobile PoS software – these companies' partner with tablet computer manufacturers to create hardware that fits their needs. One of the most critical features these companies seek is wireless connectivity. The Point of Sale software is often cloud-based, so that multiple devices can record to and change a single inventory register and transaction register. Also, with the advent of CAC Smartcards and other active security technology, it's become more and more difficult to record card data and process a transaction at a later time. It's important for Mobile POS systems to remain always connected – always ready to serve.

Most mobile POS systems for 2019 will feature two types of wireless connectivity – 802.11 WiFi, and 4G LTE cellular connectivity. The 802.11 AC specification offers excellent range, speed, and security wherever a broadband internet signal is available, making it an excellent choice for processing payments and operating virtually any app function.

4G LTE cellular connectivity, meanwhile, provides quick, secure connectivity wherever a cellular signal is available. Modern Mobile PoS tablets will need to offer multi-carrier support and may have to support carrier certification in order to be secure. Estone Technology tablets like the MD-100 offer multi-carrier cellular support and certification.

Chip Card Readers

Integrated Circuit Chip (EMV) cards are quickly replacing magnetic stripe cards at every juncture. Magnetic stripes, omni-present since the 1960s, have begun to disappear. Though the change has been slower in the US than in many European countries, estimates still suggest that 2019 is pretty much the last year that anyone should expect to conduct a transaction via Magnetic Stripe.³ Chip Card (EMV) transactions are far more secure and resistant to data breaches.



Today, no major credit card company or bank still issues credit or debit cards with only a magnetic stripe, though many still include it in case a vendor hasn't yet updated their terminals. In order to be safe, secure, and modern, a Mobile Point of Sale system needs to support chip card transactions – but can probably now safely do away with a magstripe reader.

Pin-on-Glass

In the US, most chip card credit transactions can be completed without additional input beyond inserting the card into the reader – but that may change. In some countries, most transactions already

³ <https://www.digitalcheck.com/emv-will-usa-be-ready/>

require an individual to input their PIN number as well as their card⁴. This is an overall more secure technique.

Since a manual keypad on a Mobile Point of Sale would be awkward at best, it is essential to offer a technology that works for retailers and consumers. Pin-on-Glass is familiar to most people, who have used it for years every time they want to activate their smartphones. A keypad appears on a screen, while the input is encrypted for security. Pin-on-Glass for financial transactions simply brings the encryption to an appropriate level.⁵

Contactless Payment Methods

Tying back into Mobile Payment methods, consumers are increasingly using devices like smartphones to store their financial information and function as a wallet. This offers several benefits for the consumer that go beyond ease – a digital wallet cannot be stolen and used easily, and it's almost impossible to scam or hack a digital payment system, since individual transactions are given their own one-time-use approval codes, rather than an account being opened up for use.

These methods have several proprietary names such as Apple Pay, Google Pay, etc. – but ultimately, they are software that requires point of sale systems to support one of two technologies – Radio Frequency ID (RFID) or Near Field Communication (NFC)⁶.



When devices using these methods of communication are placed in very close proximity, they will exchange secure data. The method is commonly used to complete individual financial transactions. Today, many credit card readers and other stationary point of sale devices are being designed with NFC or RFID built in, which will accelerate the growth of contactless payments. Adding RFID or NFC to your Mobile Point of Sale system is essential going forward.

2019 and Beyond

Over the past decade, payment technologies have been rapidly shifting away from cash and traditional payment methods, and towards more speedy, secure methods. Though continued shifts are to be expected, the primary payment technologies of the next couple of decades appear to have been ironed out.

If a mobile point of sale method is to be truly mobile, it can't be easily expanded with add-on elements like new types of card readers or touchpad elements – such features need to be relatively built-in. Fortunately, the new generation of Estone Technology tablets offers just this type of adaptability. Take, for instance, the Estone Technology MJ-100 tablet. This rugged tablet features an extremely secure

⁴ <https://squareup.com/townsquare/why-are-chip-cards-more-secure-than-magnetic-stripe-cards>

⁵ <https://info.townsendsecurity.com/encryption-requirements-for-banks-financial-services>

⁶ https://en.wikipedia.org/wiki/Contactless_payment

processing unit, WiFi and available 4G LTE cellular connectivity, and available RFID or NFC connectivity for mobile pay features.

Certain very simple plug-in devices do exist to add card reader functionality to a tablet like the above – but again, it is preferred to find a tablet with all of the indicated features built in. When all of these features are built in, it presents a truly mobile point-of-sale solution. Estone Technology is there, too, with our rugged MD-100 tablet, including features like a smartcard reader and fingerprint scanner for biometric payment methods.

To learn more about Mobile Point of Sale solutions for the future of your company, contact Estone Technology today. We have the hardware OEM solutions for all types of Mobile Point of Sale devices and strategies.

Estone Technology is a designer and manufacturer of tablet PCs and panel PCs for specialized and rugged industries. Learn more about our products and services online at <http://estonetech.com>.

