

SoftPOS – The future is in your hands

eBook



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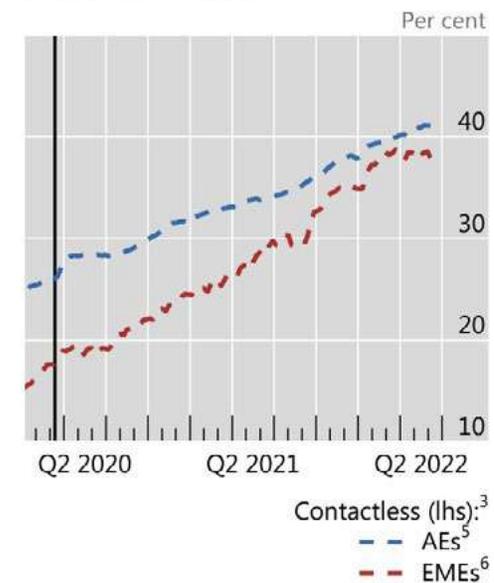
Introduction

Over the last few years, the retail shopping experience has undergone a radical transformation, changing the way global consumers research, browse, pay for, and even collect their purchases. Leading the charge in many ways are payments, particularly contactless methods. Driven in equal parts by Covid, macro-socio economic trends, and new technological innovations, contactless payments (whether via contactless-enabled cards or digital wallets) are quickly becoming the preferred payment method of global consumers.

Introduction

Prior to Covid, contactless payments represented a little more than 10% of all retail transactions. Two years later, they made up roughly 40%¹. Today, the contactless payments market is valued at close to \$39.2B (US), and analysts forecast 19.8% CAGR growth through 2030, where it is likely to reach nearly \$170B (US)².

Contactless payments



Source: Bank of International Settlements³
(AE: Advanced economies, EME: Emerging economies)



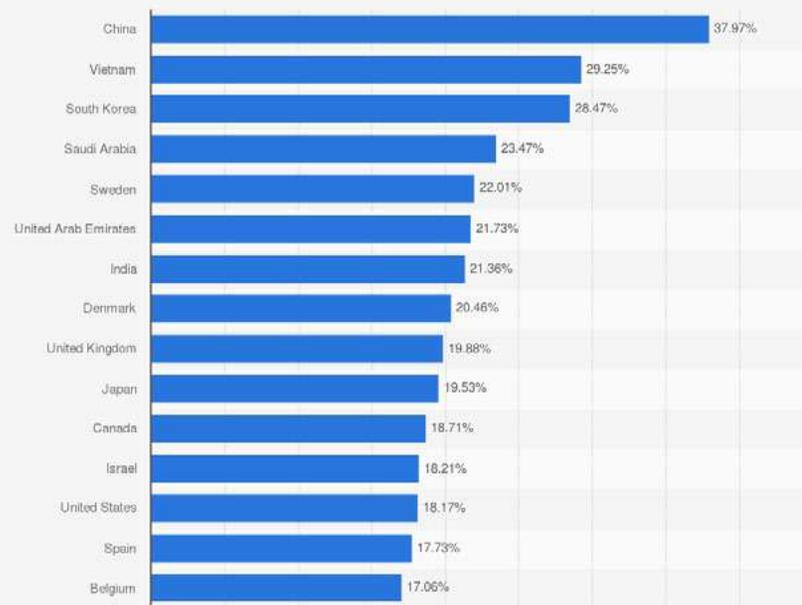
According to a Forbes survey, 59% of global consumers prefer contactless over traditional or chip-enabled cards.⁴

Introduction

The industry has responded with a number of new technologies, including increasingly sophisticated self-service kiosks, integrated point of sale (POS), and mobile devices, that provide the seamless, contactless, and personalized experiences consumers increasingly demand. The mobile POS (mPOS), in particular, has been adopted across retail and hospitality and is being deployed by grocery, fashion, beauty, fast and casual dining, and multiple other businesses, in truly novel ways, as a way to increase convenience and service, and provide the best customer experience possible.

mPOS was a truly revolutionary standard when it came on the market in the early 2000s, fueled by the growth of Wi-Fi connectivity. Point of Sale systems had been growing in adoption ever since the '70s, when computerized systems became more mass-market, getting better integrated into merchant systems with each new decade. With the introduction of cloud solutions and the expansion of mobile devices, POS solutions truly took off in adoption.

Penetration rate of mobile POS payments in 34 countries worldwide in 2022



Source: Statista⁵

Introduction

While the ability to fully service customers where they stand has revolutionized the retail experience, the reliance on mPoS and other devices has precluded its full utilization and adoption. Quickly emerging as the next-gen solution is a new class of contactless payments software or Software Point of Sale (SoftPOS) that can take the secure functionality of the mPOS and place it on almost any type of smartphone or tablet.

In the following pages, we'll explore this new technology, its value and benefits for both retailers and consumers, emerging industry best practices, and what businesses should consider when evaluating SoftPOS vendors.

Ready to meet the future of integrated contactless payments? Then, read on!



What is SoftPOS

SoftPOS is a revolutionary new approach to payments that allows businesses to service customers and transact contactless payments from a Consumer Off-the-Shelf Device (COTS), or in everyday terms: a smartphone or tablet. Unlike contactless POS systems or mPOS devices, SoftPOS or Tap-to-Phone is entirely software-based and requires no hardware other than the phone or tablet itself. With SoftPOS the retail associate or business user simply downloads the software to their device from the SoftPOS provider or relevant app store (e.g., Apple or Android), connects or configures it for their business, performs any required testing or checks, and is ready to accept payment from customers with a contactless-enabled card or mobile wallet.

How does SoftPOS work

As with many newer POS or mPOS systems, SoftPOS utilizes Near Field Communication (NFC) technology to create a secure wireless connection with an NFC-enabled card or device. NFC is similar to and based on long-standing radio frequency identification (RFID) technology. However, key differences remain. NFC technology has a much lower transmission range (a few centimeters vs. a hundred feet or more), can be used as a reader or tag, and typically requires some type of slight contact to reduce accidental triggering.



Utilizing a SoftPOS solution implies downloading a dedicated app on the mobile device(s) that will be used for payment acceptance.



Sellers need an account with the payment provider for which they will log in with their user details.



Through the SoftPOS app the merchant is able to choose the EMV payment methods, like digital wallets, BNPLs or prepaid cards that will be accepted from users.



The transaction goes through seamlessly, to the convenience of shoppers and your staff.

Is SoftPOS secure?

SoftPOS is the next evolution from EMV chip technology, where the customer has to dip their card into a chip reader and in some instances enter their PIN to verify the transaction. However, unlike chip readers, which use a combination of hard and software for authentication, SoftPOS relies entirely on software for both encryption and to shield the app from malicious threats. As a result, the industry and major card schemes EMVCo and PCI developed strict security standards that SoftPOS providers must follow. In addition to deploying whitebox cryptography, which ensures the cryptographic key is hidden at all times, SoftPOS schemes are also required to deploy a type 1 and 2 Attestation framework. An Attestation framework works locally to harden the app on the device and remotely to secure activity on the back-end server, with protocols and mechanisms for both monitoring and taking action to mitigate identified threats. That combination, plus the fact that Tap-to-Phone transactions are typically limited to \$200-250⁵, makes SoftPOS one of the most secure payment methods available.



What does POS compliance involve?

As with all transactions which involve processing of consumer card data, POS payments are governed by the **Payment Card Industry Data Security Standard**⁶. The PCI DSS steps for security best practices mandate the following goals from merchants, banks, processors, hardware and software developers and Point-of-Sale vendors:



- Build and maintain a secure network and systems.
- Protect cardholder data.
- Maintain a vulnerability management program.
- Implement strong access control measures.
- Regularly monitor and test networks.
- Maintain an information security policy.

On top of these, there is a set of device requirements called PIN Transaction Security, or PTS for short, for manufacturers of devices that capture and transmit cardholder data, which include:



- PIN Security Requirements
- Point of Interaction (POI) Modular Security Requirements
- Hardware Security Module (HSM) Security Requirements.

What does POS compliance involve?

Lastly, software vendors and other providers who develop payment applications that store, process or transmit cardholder data and/or sensitive authentication data must comply with software standards issued by the PCI Security Standards Council. This used to be covered by the **Payment**

Application Data Security Standard (PA-DSS v3.2)⁷ and more recently it is mandated by the **PCI Software Security Framework**⁸ which comprises 2 standards: **Secure Software Standard** and **Secure Software Lifecycle Standard**.

Protection of Cardholder Payment Data



Ecosystem of payment devices, applications, infrastructure, and users

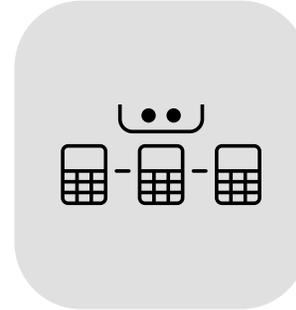
What are the different types of SoftPOS solutions?

While SoftPOS solutions come in many shapes and sizes, the PCI Security Standards Council (PCI SSC) has published three separate standards for securely accepting payments over a COTS device. Those include:



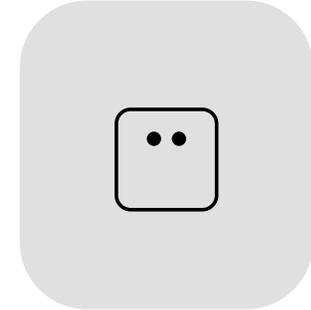
CPoC

The CPoC standard is the most simple and common. Under this standard, the NFC-enabled smartphone or device is allowed to accept contactless payment without any additional verification. Because using a PIN is not allowed, transaction amounts are limited to \$250 in most jurisdictions.



SPoC

The SPoC standard, also commonly known as PIN-on-Glass, requires the use of an external card-chip reader and for the customer to enter their PIN on the SoftPOS-enabled device. Software using the SPoC standard cannot accept contactless payments. However, the combination of the chip reader with the PIN provides the security needed to transact purchases greater than the \$250 limit.



MPoC

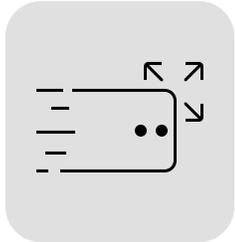
MPoC is the latest standard to be published by the PCI. While incorporating important aspects of the CPoC and SPoC standards, MPoC takes them a step further by allowing the software to both accept contactless payments and verify the PIN from a single device without the need for an external chip reader or PIN keyboard.

Doing more with less: the benefits for business

The digitization of everything has completely changed the consumer experience and given businesses a whole new set of flexible tools to experiment and improve things on the fly. SoftPOS technology is the latest in a long list of innovations but takes things a step further by making it possible for a business of any size to easily and cost-effectively grow and scale while meeting their customers wherever they shop and buy.

This presents endless opportunities across industries and types of businesses and opens the door to everything from pop-up stores, tableside or in-queue checkout, or instant event or travel ticketing. The uses and benefits are literally limitless. Here are a few of the most universal.

Popular uses



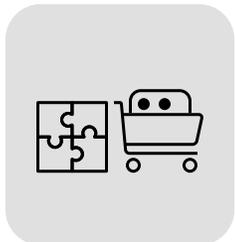
Queue busting

Regardless of the store or context, a lengthy checkout wait can ruin the experience for even the most loyal or patient customer. SoftPOS technology allows you to quickly provision and dispatch as many new checkers as you need to meet peak demand without adding additional staff, hardware, or support.



Pop-ups, mobile locations, markets, and delivery

Social and new media make it easy for businesses of any size or type to experiment with and promote temporary locations or one-of-a-kind events. With SoftPOS, your business can now easily extend the same great experience you provide in-store to any place you engage with customers outside of it, including their doorstep. SoftPOS is also a great alternative for the micro merchant, who would prefer not to invest in dedicated contactless readers or mPOS devices.



Instore engagement

Across categories, customers seek seamless, personalized experiences, whether online or off. SoftPOS has the potential to put critical business systems and information, such as your inventory, catalog, customer purchase and history data, and recommenders, in the hands of every customer-facing employee, allowing them to quickly and conveniently service, upsell and cross-sell, and transact the purchase right from their own smart device.



Self-service checkout

With the recent publication of the MPoC PCI standard, the sky is now literally the limit for how and where you can use SoftPOS technology. An emerging use case businesses of all types are increasingly taking advantage is self-service checkout. Whether the device is fixed to the checkout within your retail space or placed on the diners' table, SoftPOS technology gives the customer the ability to conveniently order, pay, and receive confirmation without ever engaging with a salesperson or server.

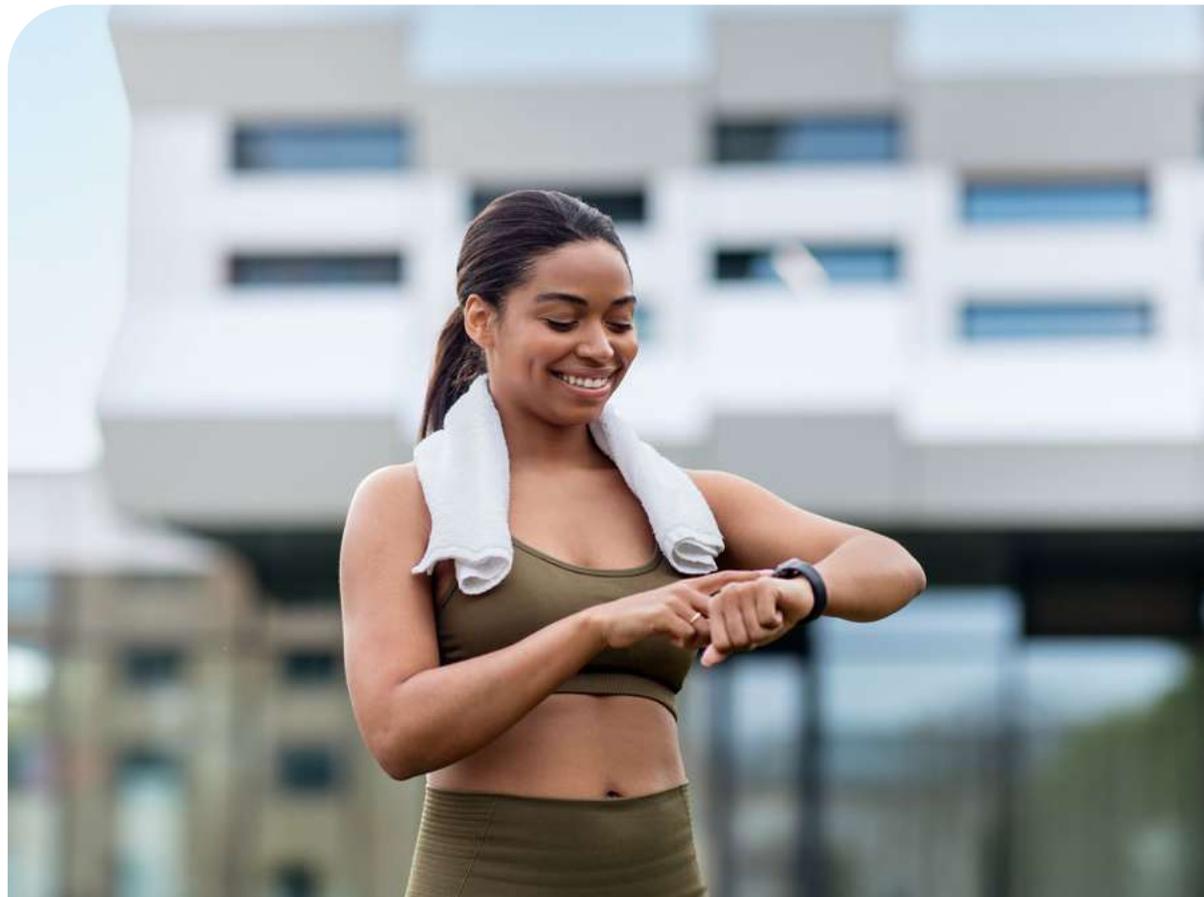
Universal benefits

Time and cost savings

mPOS systems are already in wide use across industry, but the hardware and other capital requirements can preclude their adoption by many small and micro businesses or greater utilization by larger companies. In contrast, SoftPOS technology can be placed on any NFC-enabled device, potentially putting the capability in every employee's hands. SoftPOS allows you to completely bypass the hardware provisioning, setup, and implementation process. Because the SoftPOS technology is typically deployed as an app on the employee's phone, the setup is simpler, easier, and quicker to learn and doesn't require the same level of technical support or specialization. SoftPOS can also act as a backup POS device, helping to eliminate service downtime caused by broken, inadequately charged, or lost mPOS devices.



82% of shoppers named contactless payments as the “cleaner way to pay⁹,” yet 100M+ SMBs don't even accept digital payments, citing cost barriers¹⁰.



Universal benefits

Increased flexibility

In today's business climate, things move fast, and if you can't keep up or ahead of the latest market trends or consumer preferences, the competition will leave you behind. With no need for additional hardware, external power source, extensive setup, and training, SoftPOS offers you the ultimate in flexibility. On the one hand this solution allows you to scale up checkers to meet growth or demand – for example during busy holiday seasonal periods, when a new app downloaded on staff phones can get your additional members collecting payments. Additionally, SoftPOS systems are typically highly configurable, allowing you to easily customize the system to meet your business or customer needs. This not only allows you to change or experiment with different payment methods but also evolve with the times without having to replace your POS system.



Universal benefits

More convenience

With the recent rise and spread of mobile business apps for COTS, there's a good chance your employees are already using their smartphones to handle core business tasks like inventory and order management. With SoftPOS technology, the employee can now add the ability to quickly transact and reconcile payments (and generate a paperless receipt) from the same device, increasing convenience for both the employee and customer on the other end. Plus, by adding the potential to completely manage the customer journey from the employee's smartphone, you open up a whole new avenue for fully servicing the customer from any location, ultimately providing them the personalized, seamless, and convenient experiences they demand.



Universal benefits

Expanded reach and new use cases for businesses

SoftPOS solutions have the potential to revolutionize the workflows and bottom-lines of different players through the payment cycle.



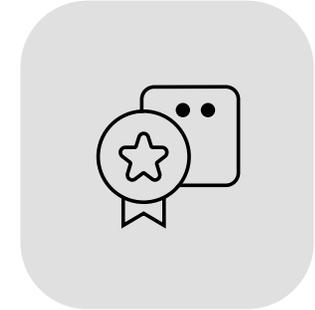
Acquirers:

By offering these types of solutions, financial institutions and acquirers can scale to new audience segments, while lowering acceptance costs.



Merchants:

Sellers of any size and from any vertical can lean into SoftPOS solutions to complement their POS portfolio and streamline in-person or delivery touchpoints.

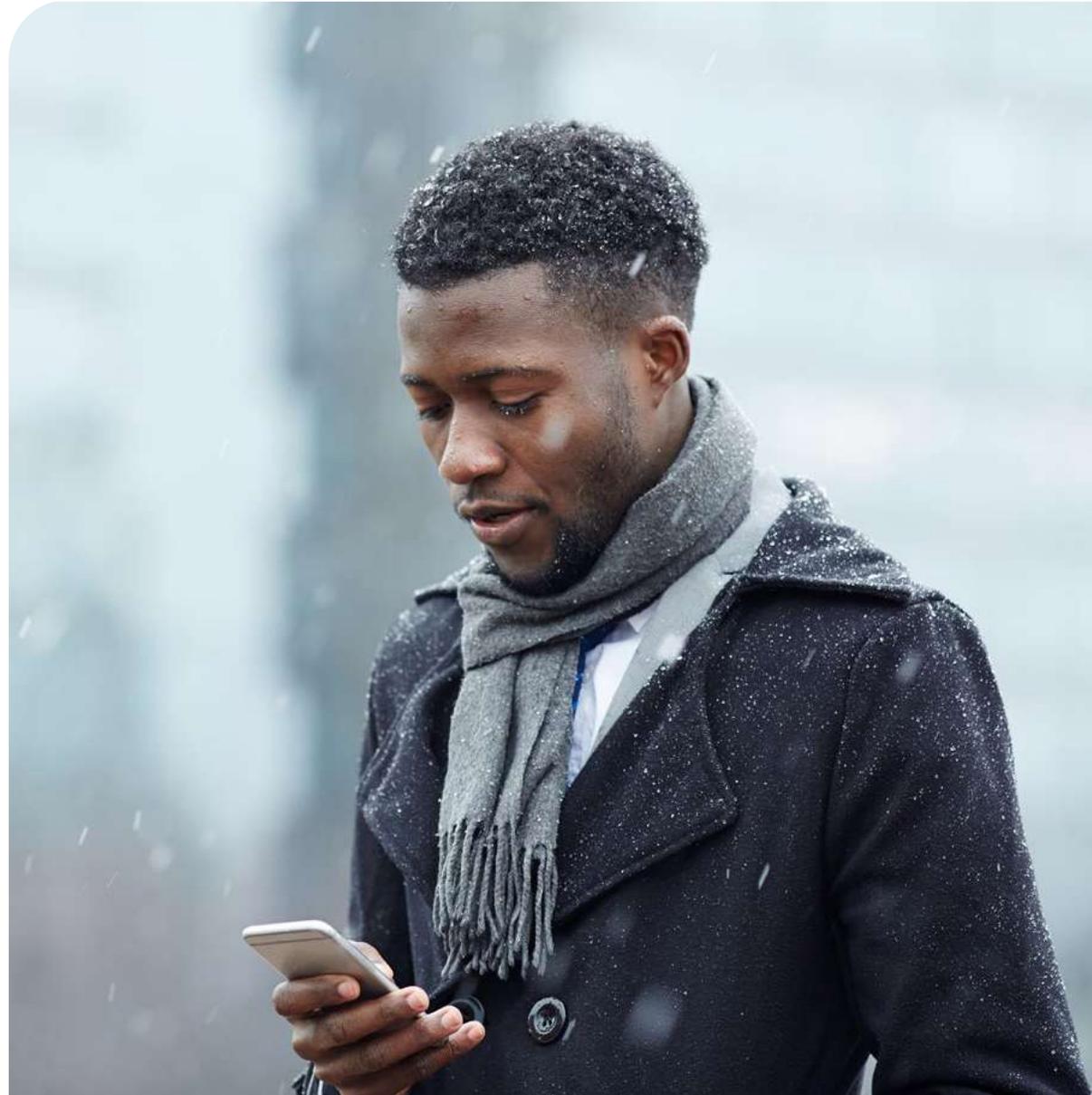


Channel players:

SoftPOS integrations are a lucrative solution for payment processors and gateways looking to keep their customers up-to-date with the latest payment solutions.

Offers solutions for the three primary PCI certifications

The three PCI certifications CPoC, SPoC, and MPoC represent the primary methods SoftPOS solutions use to transact payments from device to device. While the majority of SoftPOS transactions use the Tap-to-Phone contactless method, the software should support all three methods, including SPoC or Pin-to-Glass, and the new MPoC standard, which enables the highest level of security without the need for external chip readers or PIN pads.



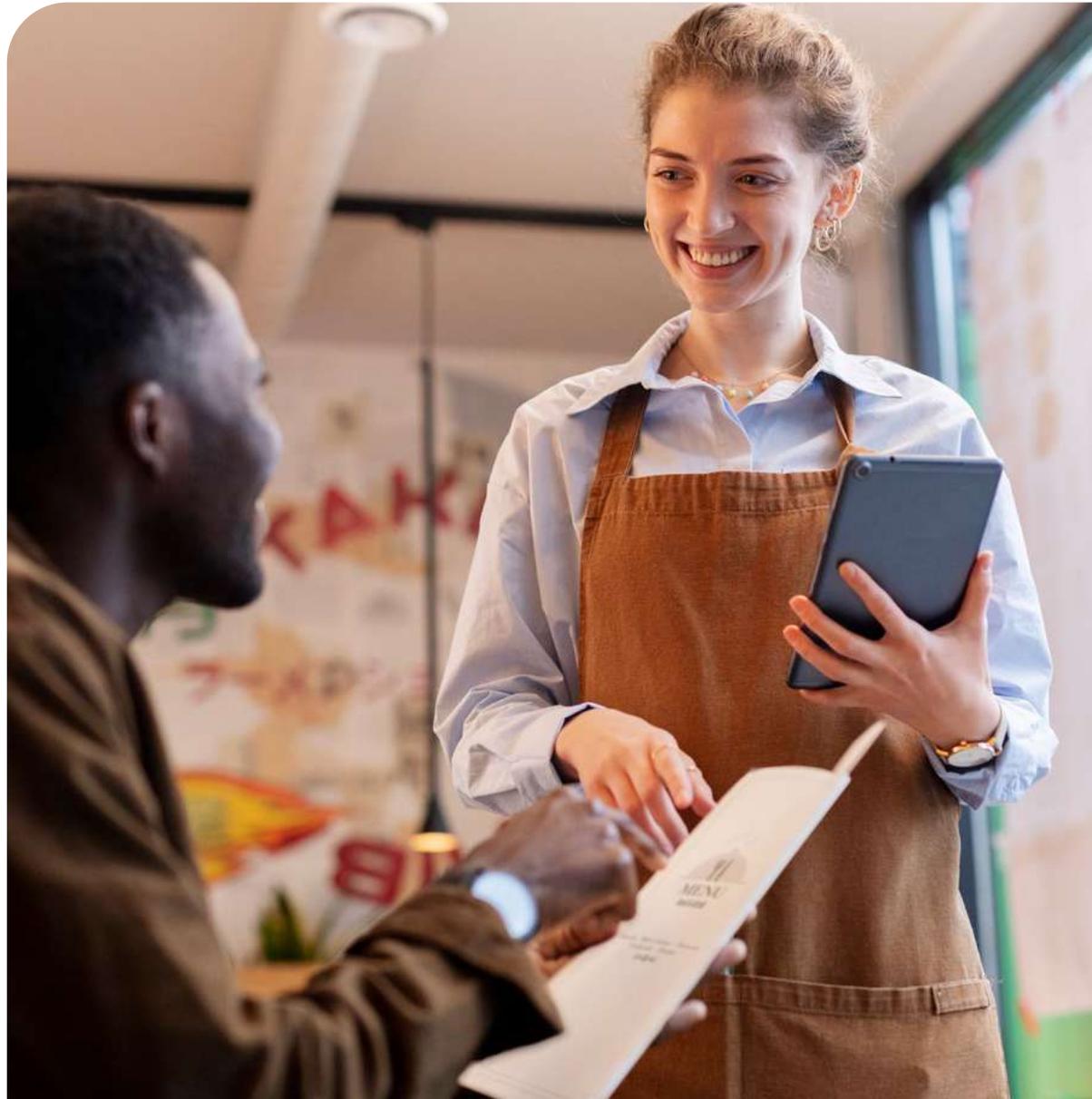
Easily integrate with eCommerce, CRM, ERP, and other core business systems

As every business knows, payments are just one part of the customer checkout experience. To give customers the personalized, seamless experience they want requires close integration between multiple business systems. When you extend key business systems to your SoftPOS technology, you give the employee holding it the ability to manage and shape the customer experience.



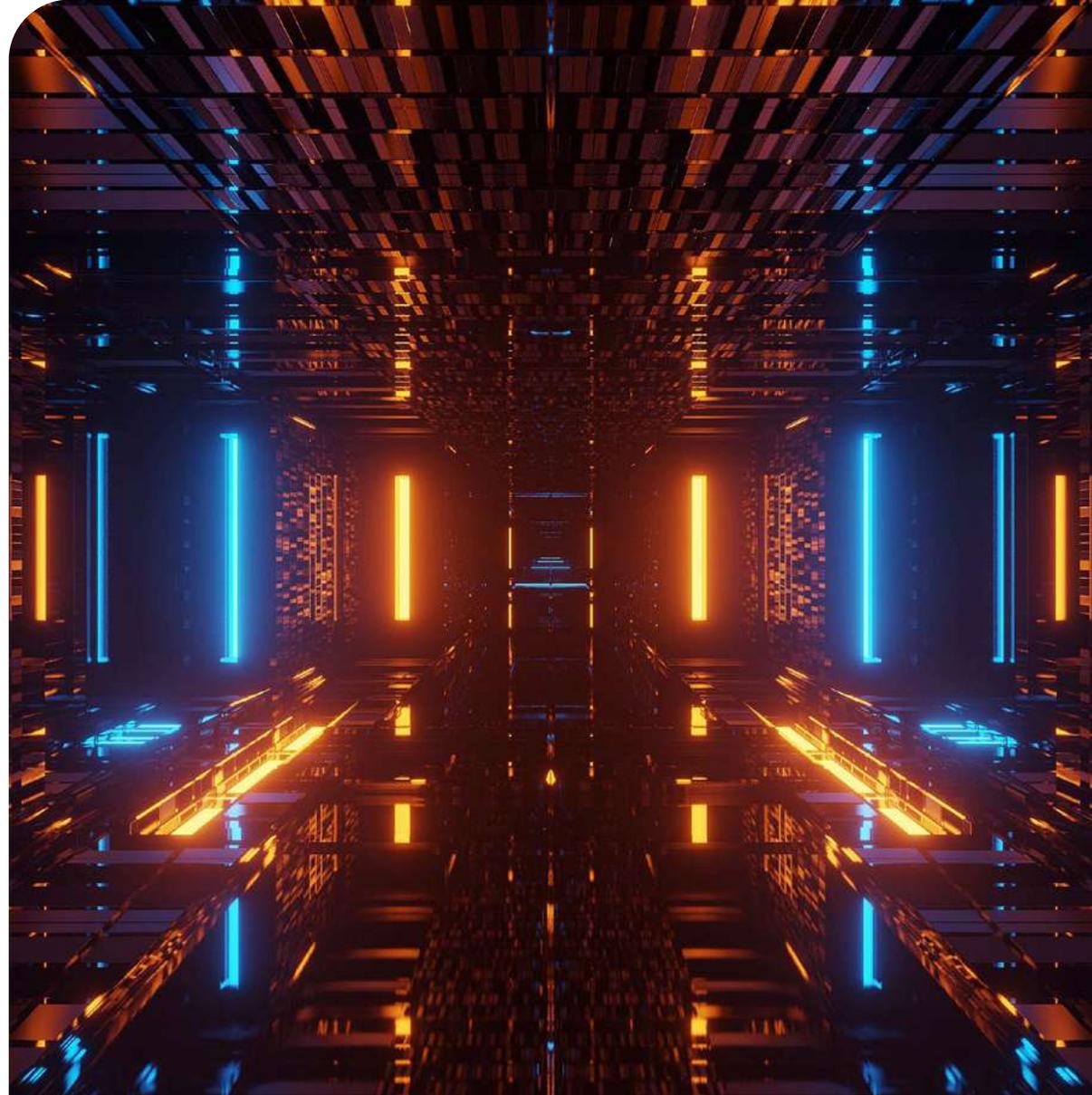
Combines with traditional POS systems

Choosing a POS system for your business is one of the most important decisions you can make. While close to two-thirds of the world's estimated 3.4 billion smartphones are NFC enabled, only 20% of global consumers have contactless-enabled cards or devices¹¹ Although that number is sure to increase, a successful payments strategy needs to include a mix of integrated hardware and software solutions that can accommodate the full range of payments methods available, both today and tomorrow. Also, it's important to note that although SoftPOS software can approach the capabilities of traditional POS devices, a comprehensive POS platform typically provides a broader range of business services and support required by larger and enterprise-sized businesses.



Is PCI and payment industry compliant

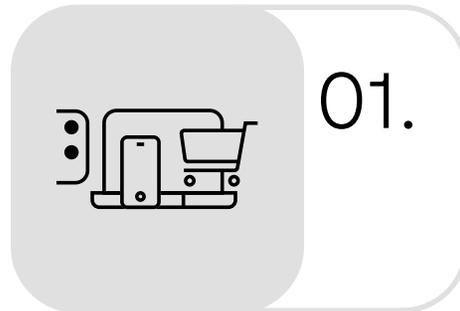
The PCI standards for COTS devices were designed to ensure SoftPOS solutions include the minimum level of security necessary to harden the application from malicious threats and safely conduct payments across COTS devices. Compliance with PCI standards ensures vendors use the latest tools, such as whitebox cryptography and Attestation Frameworks, to obfuscate keys and harden the application and back-end servers from attack.



The future of POS

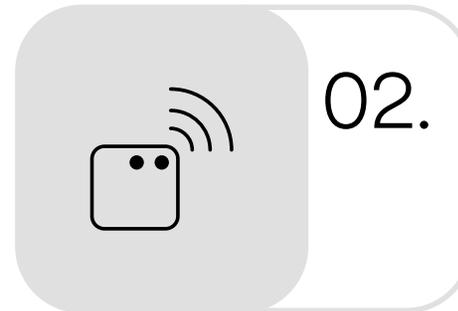
The future of POS

With the increased adoption of digital technologies from recent years and consumers' growing preference for cashless payments, here are the trends shaping the POS hardware and software market:



Omnichannel shopping journeys

Today's shoppers cross in-person, online and mobile channels, expecting seamless flows and the ability to pick-up a journey where they left it off. POS systems are key to these unified experiences, letting shoppers start a journey online and finish it in-store, or the other way around, while also consolidating available customer data for more personalized experiences.



Untethered commerce

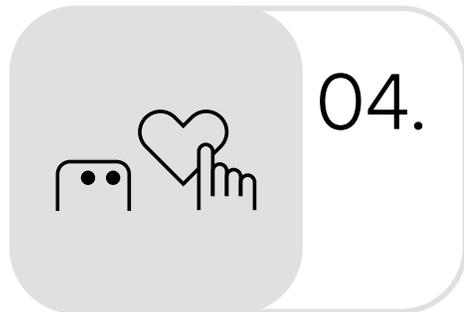
In-person sales used to be concluded at the counter, but nowadays mobile devices have opened avenues for new use cases, such as those for catering, curbside pick up or off-site sales. The rise of mPOS devices has also made way for merchants to go beyond processing with their point of sales, as mobile POS systems can also handle inventory management, product catalogs and even delivery management.



Move to cloud-based software

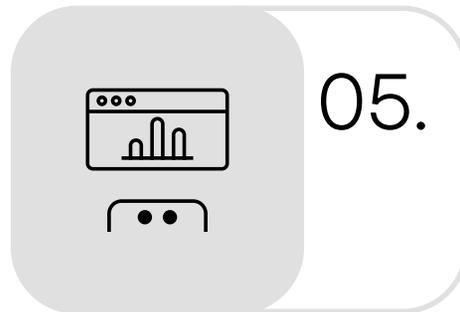
Hardware-based systems are transitioning to cloud-hosted ones, as more merchants are drawn to the benefits that the category brings. POS-systems that are cloud-hosted allow retailers to automatically synch data on remote servers, streamline device updates and deployment of apps, while also offering consolidated reporting and fueling omnichannel objectives.

The future of POS



Customer loyalty programs

With the rise in competition in commerce markets, sellers are turning more towards loyalty programs, as a means to retain their user base and encourage repeat purchases. POS systems with built-in loyalty programs or with options to integrate with external rewards programs are becoming more popular, as a go-to-route to strengthen relationships with users.



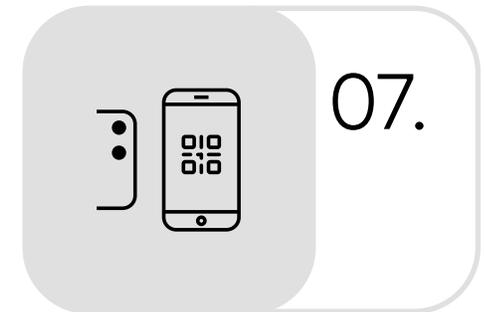
POS data analytics

Metrics from point-of-sale solutions have been around for many years, but interest in them has only grown alongside their capabilities. Beyond tracking transactions and location revenue, POS data analytics can offer insights that help customize the shopping experience, and drive business growth with metrics on sales trends, customer surveys, staff operations, store foot traffic and much more.



Personalized shopping experiences

Most shoppers expect a certain level of personalization of their journeys today, and modern POS systems support these satisfaction and retention building endeavors. Data from POS software helps merchants better understand users and cater to their profiles and fuels the automated messaging, campaigns and promotions that drive revenue growth.



Alternative payment methods

As digital payment methods are replacing cash as consumers' favorite checkout means, APMs (Alternative or Advanced Payment Methods) will continue to be a relevant trend in the POS space. Today's devices and POS software cater to a continuously expanding ecosystem of payment methods, including digital wallets, Buy Now, Pay Later (BNPL) options, installments, gift cards and others.

Coming soon from Verifone

Our payment solutions help you create seamless shopper experiences

Our portfolio of payment devices and services covers all new market technologies and needs. We have a broad range of mPOS devices already available, market validated and loved across the globe, and our range will soon extend to the SoftPOS segment. [Get in touch with us](#) to be the first informed when new solutions are launched.



Versatile devices

From countertops, integrated POS and site controllers, to portables, mPOS or kiosks, you'll find devices for each use case.



Tokenized payments

All payments processed through our systems are tokenized, allowing your users to cross in-person and digital channels while continuing their journeys.



Unified reporting

Have all payments details, insights and trends consolidated in a single view in Verifone Central, for more timely and accurate business decisions.



PCI compliant

Our devices and software solutions are PCI DSS and PA DSS certified, to streamline your compliance workload and for more peace of mind.



Accessibility features

Leverage POS solutions with out-of-the-box certifications for accessibility and usability, including accessible touchscreens, tactile keypads and audio confirmations.



Loyalty & other apps

Upgrade the in-person payment experience and refine your retention efforts with apps developed by us or third parties that encourage engagement and rewards at the checkout.

Resources

1. [The Pandemic, Cash and Retail Payment Behaviour: Insights from the Future of Payments Database](#), **Bank for International Settlements, 2022**
2. [Contactless Payment Market to Hit USD 166.46 Billion by 2030 Owing to More Convenient and Faster Payment Experience for Consumers](#), **Yahoo Finance**
3. [How the Pandemic Made Contactless Payments the New Normal](#), **Forbes, 2022**
4. [Penetration Rate of Mobile POS Payments in 34 Countries Worldwide in 2022](#), **Statista, 2023**
5. [Tap, Pay, Done: Contactless Payments in 2023](#), **iQmetrix, 2023**
6. [PCI DSS Quick Reference Guide, Understanding the Payment Card Industry Data Security Standard version 3.2.1](#), **PCI Security Standards Council, 2018**
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8. [Software Security Framework Secure Software Standard](#), **PCI Security Standards Council, 2019**
9. [How New Age SoftpPOS Solutions Can Take Customer Experience to the Next Level](#), **Build38, 2022**
10. [Everything You Need to Know about SoftPOS and Its Market Potential](#), **Aevi, 2022**
11. [Contactless Payments Surge and Approach 1 in 5 In-Person Card Payments](#), **Bankrate, 2022**

Future-Proof Your Customer Journeys

We shape ecosystems for online and in-person commerce experiences. [Contact our sales teams](#) to find the best solution for your needs.



Devices

Accept payments in person with top-of-the-line devices, for each use case.

[LEARN MORE](#)



eCommerce

Accept tokenized payments in your online channels, including world- favorite APMs.

[LEARN MORE](#)



Acquiring

Manage your payments end to end, from acceptance to settlement.

[LEARN MORE](#)



Services

Leverage value-added services for tokenization, security, support, or deployment.

[LEARN MORE](#)



APMS

Expand the payment experience with choices beyond traditional card payments (digital wallets, BNPLs).

[LEARN MORE](#)



Omnichannel

Create connected-commerce experiences across channels: online, in-app and in-person.

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