SoftPOS:

Next generation Point-of-Sale solution

Discover & TSG collaborated to take a deep dive into SoftPOS. The following report contains information about how SoftPOS works, the current market, and what the future holds for SoftPOS.

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Stakeholders use diverse terms for SoftPOS

SoftPOS stands for Software Point Of Sale. It describes software that enables a smartphone or tablet device to transform into a POS terminal without the need for additional hardware – the technology allows merchants the convenience to use their existing smartphone or tablet or purchase a device at a lower investment than a traditional point of sale terminal, with no need to purchase or keep track of a dongle. It is the process by which a customer interacts with only a mobile device to complete a contactless payment.

Each solution provider has their own name for their SoftPOS solutions, which often references the "tap" that takes place between the contactless payment methods (e.g., contactless card or digital wallet) and the mobile device when a SoftPOS transaction is initiated. The technology goes by many names. Below we highlight Discover® terminology, which is referenced throughout.

Discover® Tap on Mobile is the name of the SoftPOS solution offered by Discover®, and it is compatible with numerous mobile devices. To securely accept contactless payments, a merchant downloads a solution provider's app to their mobile device that incorporates the Discover® Tap on Mobile solution, allowing their device to function as point-of-sale device. Then, a cardholder taps their contactless card, digital wallet or wearable on the merchant's mobile device to complete the transaction.

Software Point-of-Sale offers merchants a new avenue to accept contactless payments

Over the years, point-of-sale (POS) systems have evolved from cash registers to full-fledged management solutions that allow merchants to manage inventory, reporting, customer management, and eCommerce from one platform. Clunky registers and bulky computers are being replaced by sleek tablets and phones.

Technology like software POS (SoftPOS), biometric payments, and autonomous checkout are transforming payment experiences for consumers and offering merchants another way to accept contactless payments nearly anywhere they choose to do business. This shift changes how merchants relate to both their customers and their payment processing providers.

This report provides an overview of SoftPOS technology, its place in the industry, and the Discover® Tap on Mobile product. SoftPOS offers many benefits to its end users in comparison to traditional POS systems, including modernized security and seamless points of interaction.

The market braces for change with the emergence of new payment acceptance technology

Development of SoftPOS technology began in the early 2010s, and now a myriad of solutions are available for smartphones and tablets across the globe.

As big tech players are entering the market and security and compliance standards have been set, we will now see how far the technology will be adopted by providers and merchants in the U.S. and beyond.

In this report, we will discuss:

- What SoftPOS means
- How SoftPOS fits into the U.S. market
- How SoftPOS will affect payments in the future

Evolution of POS:

Software is transforming the point-of-sale market

SoftPOS provides an opportunity to increase the amount of checkout points and/or gives merchants additional options to accept contactless payments

The POS system has evolved greatly over the past decade. From traditional POS systems to mobile POS (mPOS), smartPOS, and now SoftPOS, software has been critical in transforming payment exchanges from a physical process relying on hardware (e.g., cash and plastic) to an increasingly digital and contactless experience.

The POS has grown from the location where a transaction originates to a full-blown business management system, allowing merchants direct insight into the operations and performance of their businesses.

SoftPOS can harness the features of evolving POS technology by:

- Relying on cloud solutions: Resulting in reduced cost, easy access, and continuously updated software and hardware
- Channeling business management: Resulting in increased insight into multiple aspects of an operation from employees and inventory to marketing and analytics
- Enabling omnichannel: Resulting in improved ability to manage complex inventory, fulfilment, and payments
- Leveraging big data: Resulting in higher accessibility to customer and product data

Moreso than its predecessors, SoftPOS allows merchants to easily add terminals to their checkout experience by enabling their mobile phone as a POS terminal using Near Field Communication (NFC) technology.

Overview

Technology and use cases provide a foundation for the growth of SoftPOS

SoftPOS Highlights

The U.S. market is estimated to makeup 36% of the global SoftPOS market[1]. While the U.S. is poised for growth, its SoftPOS market lags behind regions with stronger cellular infrastructure and contactless acceptance, such as the Nordics and Europe in general, Australia, and the Asia Pacific region.

Use cases abound, highlighting the mobility and usefulness of the technology, giving micro-merchants and those with seasonal sales the ability to scale their personal device into an additional POS terminal capable of accepting contactless payments.

Top players in the SoftPOS market provide software development kits for merchants and acquirers to expedite adoption of SoftPOS, speed-up the development of solutions, and decreasing the time it takes to bring solutions to market.

A broad market survey found that the most important features of SoftPOS will include contactless tap and PIN and the ability to sell, reverse the sale, and issue refunds[2].

SoftPOS is the next iteration of POS systems, and we expect the technology to grow. In the future, more use cases for SoftPOS will emerge meeting the needs of those merchants, increasing efficiency and improving core business drivers.

Source: [1]Fortune Business Insights (2022) "SoftPOS Market Size, Share & COVID-19 Impact Analysis", [2]Aevi (2022) "Views on SoftPOS: The Latest Insights from Potential Users"

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How is SoftPOS Different?

Traditional POS

Connects your payment terminal to an onsite server via closed internal network. To run a traditional POS system, a business will need a computer, keyboard and mouse, barcode scanner, customer-facing display, a credit/debit card reader, cash drawer, and receipt printer – or some kind of all-in-one solution. This is otherwise known as an on-premise or legacy POS.

mPOS

Portable technology that enables merchants to process payments wirelessly via their mobile device. A business needs a credit/debit card reader connected to their mobile device to perform payment processing functions. A customer approaches checkout and the merchant uses a mobile device to process the transaction with the help of a card reader and application.

SmartPOS

A POS terminal equipped with a touch screen that enables additional business management software beyond payments, such as loyalty programs, accounting, inventory management, reporting and analytics, marketing tools, and employee management. These POS solutions are typically run in the cloud and are updated automatically and frequently.

SoftPOS

A software application transforms any Commercial Off-The-Shelf (COTS) device, such as a mobile phone or tablet, into a payment terminal capable of accepting contactless payments via NFC technology – without the need for additional hardware. A merchant's mobile device suffices as a card reader and the customer must only interact with one piece of hardware - a merchant's mobile device – to complete a transaction. Discover® offers a SoftPOS technology solution, called Tap on Mobile. This solution can be integrated with an application to allow the acceptance of Discover for payment.

Use Cases

Tap on Mobile can streamline the checkout process

Retail

Retailers can use Tap on Mobile devices to meet customers wherever they are in the store to reduce wait times at checkout[1].

Micro-Merchants

Solopreneurs would benefit from being able to accept popular forms of payment with quick and simple setup.

Delivery

Tap on Mobile enables payment upon delivery and the ability to upsell while face-to-face with a customer[2].

Restaurant

Restaurateurs can make use of the portability of Tap on Mobile to streamline the checkout process via pay-at-the-table processes and reduce wait times[2].

Transit

Accepting on-board ticket sales and checking for verification of payment can happen while riders are in-transit[2].

Mobile Businesses

For merchants who operate on-the-go, their mobile device can become the hub of all business functions, including payments[3].

Large, Enterprise Merchants

Use cases are being developed for large merchants as well. For example, Sephora plans to utilize SoftPOS by allowing its employees to accept payment on a mobile device.

Source: [1]FIS Global (2021) "SoftPOS: The Evolution of Point of Sale Payment Acceptance", [2]Discover (Web) https://www.discoverglobalnetwork.com/solutions/enable-payments/tap-on-mobile-payment-solution/, [3]The Fintech Times (2023) "Revolutionising the Future of Payments: How SoftPOS is Changing the Game"

Market Overview

SoftPOS has high-growth potential, in early days of adoption

Global transaction value processed via SoftPOS is projected to rise from $1 billion in 2023 to $11.8 billion by 2028[1].

The number of smartphones utilizing SoftPOS technology globally is expected to rise 683% from 2023 to 2028[1].

In mid-2023, a TSG survey found in a sample of 265 North American services merchants, that only 5% of merchants were currently using a SoftPOS solution[2]. This suggests that SoftPOS adoption among North American merchants is currently around 5% and there is great growth opportunity based on projections.

- Most were utilizing invoicing, cards kept on file, eCommerce platforms, mobile POS terminals, websites, or traditional POS systems to take payments from customers.

Estimated SoftPOS-Using Merchants Worldwide (millions)

2022	6
2027	34.5
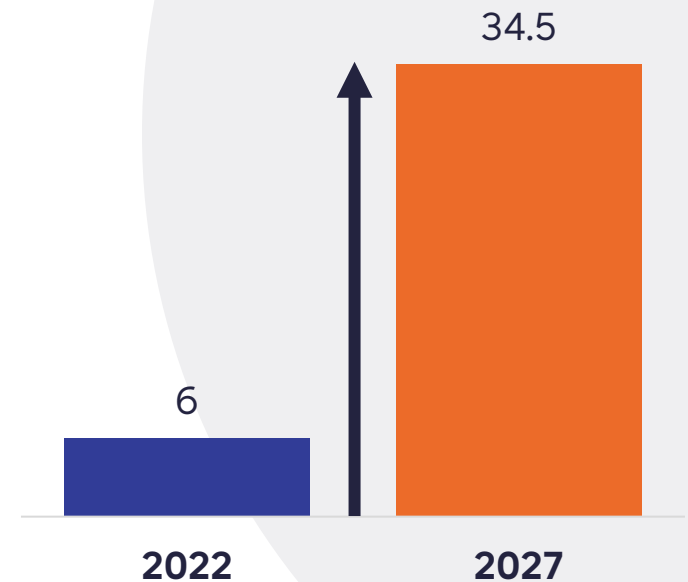
Adoption of SoftPOS Technology

Many factors will influence the adoption of SoftPOS technology

Contactless Payments

Contactless payment acceptance is expected to expand over 200% by 2027[1]. The use of cash is also decreasing.

Affordability

Merchants can use their existing smartphone or tablet, or purchase a smart device for a minimal cost, allowing small- and medium-sized merchants to save money and time with SoftPOS.

COTS Usage

Due to widespread usage of smartphones and other smart devices, the convenience afforded by SoftPOS technology is substantial. There are currently 3.4 billion active smartphones worldwide[2].

Mobility

Merchants want to meet customers where they are. SoftPOS gives them the convenience of portability to bring their POS device to customer locations for pickup and delivery.

Growth in **accessibility, affordability, payment mobility,** and **contactless payments** have spurred greater adoption of **SoftPOS** technology in the U.S.

Source: [1]Payments Dive (2023) "How SoftPOS Is Poised to Revolutionize Payments", [2]The Fintech Times (2023) "Revolutionising the Future of Payments: How SoftPOS is Changing the Game"

SoftPOS Value

Expand your reach and reap the benefits of SoftPOS

Value-Adds for Merchants

- **Rapid Merchant Onboarding** – Merchants can use a smartphone or tablet they already have and simply download an application that enables Tap on Mobile capabilities

- **Safety** – Cashless transactions limit merchants' cash-on-hand, keeping their assets and transactions safe and secure

- **Eco-Friendly** – Limiting the need for physical receipts and reducing merchants' hardware footprint leads to less hassle for both merchants and consumers as well as an improved environmental footprint

- **Customer Satisfaction** – The Tap on Mobile technology is preferred for customers who wish to accelerate payment and get through checkout lines faster

- **Security** – SoftPOS is held to the latest EMV standards and specifications – the same certifications that make other contactless acceptance points secure[1]

- **Easy-to-Install Updates** – Merchants receive a notification within their app when they needs to update their Tap on Mobile device[2]

Discover® offers a diverse network of [certified Tap on Mobile solution providers](#) to help merchants expand their reach and reap the benefits of SoftPOS.

Market Adoption of SoftPOS in Brief

U.S. market poised for growth in the near-term

Global Adoption of SoftPOS

Although there are other regions ahead of North America in contactless payment adoption, SoftPOS is projected to grow fastest in the U.S. in the near term due to the increased presence of SoftPOS product offerings – North America is home to many of the world's largest payment services and POS providers[1,2].

Europe: Modern cellular infrastructure enabled quicker initial uptake of the technology[2]

North America: The U.S. is behind Canada and the U.K. in contactless enablement but further ahead in terms of SoftPOS market share[2]

Africa: The popularity of digital wallets and other forms of mobile payments provides a path forward for SoftPOS adoption, although credit and debit card use is low across the continent[2]

Asia-Pacific: Contactless infrastructure plus a high rate of contactless use bodes well for SoftPOS growth[2]

South America: Continued growth in mobile, digital, and contactless payments provide the foundation necessary for SoftPOS adoption[2]

● **Growing Quickly**   ● **Emerging**

Future Outlook

Consumer behavior and the popularity of digital wallets will drive SoftPOS adoption

- Consumers are likely to appreciate the ease-of-use and speed offered by SoftPOS solutions at checkout.

- There is a fading use of cash, with growing penetration of contactless payments, including digital wallets. 44% of Millennials make purchases via digital wallet apps in-store[1].

- Big payments players are increasingly deploying new SoftPOS solutions as part of their omnichannel product offerings.

- For SoftPOS solutions, proprietary hardware will be less important when any smartphone can become a point-of-sale device. Merchants with need for only one SoftPOS terminal can simply use the device they already have.

Source: [1]FinExtra (2023) "Mobile Wallet Apps 2023: Revolutionizing Business and enhancing Financial Inclusion"

Future Outlook

SoftPOS will influence the modern POS

The payments industry is going through a remarkable period of change. Technology continues to accelerate the industry's metamorphosis. The digitization of payments and more contactless payment methods have created a new set of consumer and merchant expectations.

- To meet these expectations, industry focus must be centralized on certification and compliance to enable robust features.

  - The newest security standards ensure SoftPOS solutions offer a software-based alternative to traditional payment terminals that enables PIN verification of contactless payments (i.e., PIN-on-glass), closely mirroring the capabilities of mobile POS systems.

Short-to-Medium-term Outlook:

SmartPOS and mPOS offer more capabilities (e.g., more form factors, contact payment acceptance, more use case options, more market players, etc.) than SoftPOS in the short-term. Additionally, security is often built into the hardware itself for these predecessors.

Long-term Outlook:

SoftPOS will coexist alongside traditional POS for the long term. We will likely see more and more mobile devices such as smartphones and tablets used as payment terminals at checkout.

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The future is contactless

Tap on Mobile supports a wide variety of use cases that can supplement businesses of any size. Consider Tap on Mobile today to enhance the checkout experience.

Need more information on Discover® Tap on Mobile acceptance?

Contact your Discover Global Network representative.

Learn More   **Discover Tap on Mobile How It Works Video**

Why Discover® Global Network?

Discover® Global Network processes **$550B+ of transactions** annually and has established a network across the industry to power payments globally including Discover® Card and domestic schemes

46%
Increase in Discover® Global Network volume growth from 2018–2022

200+
Countries and territories

70M+
Merchant locations worldwide

and millions of additional micro-merchants connected to marketplaces and payment facilitators

Fastest Growing
Global Payments Network

TSG is a fast-growing analytics and consulting firm. The company serves the entire payments ecosystem, from fintech startups to Fortune 500 companies. The firm provides its clients with advisory services, research and analytics to help them plan and execute their strategic initiatives. Based in Omaha, a recognized payments industry hub, TSG is an established leader in this high-growth, ever-evolving space.

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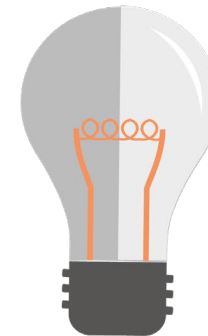
~4M CARD-ACCEPTING MERCHANTS IN TSG'S AIM ANALYTICS PLATFORM, DRIVING MILLIONS OF DOLLARS IN ROI FOR ITS USERS

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