Mobile payment System

Mobile payment is the process of making payments for goods and services through a mobile device, such as a smartphone or tablet. This can include payments made in stores, online, or through peer-to-peer (P2P) transfers.

Types of mobile payments

1. **Mobile wallet**
Mobile wallet services include apps like Google Pay, Apple Pay, and Samsung Pay. These services run on computers, smartphones, tablets, and smartwatches, and link to a customer's credit card, debit card, or bank account. Once a person sets up their mobile wallet account, they can use these devices much like they'd use a credit card. In a brick-and-mortar store, they can tap their device on a smartwatch, or tablet on a payment terminal equipped with an NFC radio. Online, they can use their mobile wallet account on many merchants' checkout pages by selecting a mobile wallet icon (such as Apple Pay) from among the checkout options.

2. **Mobile peer-to-peer**
This type of transaction, which runs on platforms like Zelle, PayPal, Venmo, and CashApp, allows individuals to transfer money to other individuals via a mobile app or a web page. Some of these services—most notably PayPal—enjoy wide acceptance from small business retailers. This means you can pay a business owner using PayPal instead of using a credit card.

3. **SMS payments**
SMS payments let people make payments by sending an SMS to a specific phone number. Americans, who largely own smartphones, rarely make SMS payments. In parts of the developing world, however, SMS payments are prevalent and widely trusted.

4. **Mobile ecommerce**
This category, also known as m-commerce, describes any type of transaction one makes on a mobile device. If a shopper makes a purchase on their mobile device's browser or on a merchant's proprietary app, that qualifies as a mobile ecommerce payment.

5. **Mobile point of sale**
In a mobile point-of-sale (mPOS) arrangement, a retailer uses their mobile device as a smartwatch, or tablet on a payment terminal.

Customers can insert a credit card into the chip reader, swipe, or tap their card or mobile device to the reader for a NFC transaction. At this point, your point-of-sale software takes over, transmitting payment data to financial institutions and transferring money to your account.

Advantages of mobile payments

As a small business owner, you stand to gain many benefits when you accept mobile payments.

They include:

Convenience. Mobile payments eliminate a barrier to finalizing a customer's purchases. Customers can pay conveniently by tapping a phone or credit card at a point of sale, or they can make online transactions using their payment apps.

Speed. Financial institutions process mobile payments in the blink of an eye. This makes mobile checkout as fast as a credit card transaction—if not faster.

Popularity. More customers are spending more money using mobile payments. In 2021, global consumers spent $1.786 billion via mobile payments. Financial analysts expect this figure to more than triple within the next five years.

Security. Mobile payments are among the most secure forms of commerce. That's because they're performed on mobile devices that tend to require some form of authentication, typically in the form of a fingerprint, facial recognition, or a passcode. The devices also encrypt their transmissions, giving thieves a very minimal chance of intercepting customer data.

Disadvantages of mobile payments

While mobile payments offer many benefits to merchants and consumers, they come with a few drawbacks.

Transaction limits on peer-to-peer transactions. Many mobile wallet providers place a limit on their users' person-to-person transactions, which means merchants who want to receive payments from an app like Venmo may not be able to make sales above a certain dollar amount. This boundary helps protect all parties from theft and fraud. However, mobile wallets do not add purchase limits to retail purchases made at tap-to-pay terminals. Retail shoppers who link a credit card to their mobile wallet app will not experience any app-imposed purchase limits when shopping in a store.

Specialized smartwatch, or tablet on a payment terminal needed for mobile wallet transactions. Merchants need a modern smartwatch, or tablet on a payment terminal to accept tap-to-pay transactions in a brick-and-mortar store—an expense that not all small businesses can afford.

How Mobile Payment Systems Works

The operating principle of a mobile payment system depends on its type. The main solutions powering mobile payments are:

NFC. If your clients are using a mobile wallet, they can simply hold their device over a terminal to complete a payment. The NFC technology embedded in the phone and the terminal enables them to exchange encrypted payment information via radio-frequency identification (RFID).

Network tokens. This method is made possible by mobile payment tokenization and is useful for storing and processing the consumers' payment information. Network tokens enable businesses to avoid dealing with sensitive data and lower the risks of a data security breach.

QR codes. These are secure tools used to exchange encrypted payment data. It is a convenient method for both merchants and customers, as a quick scan of the QR code is enough to conduct a transaction.

Virtual terminals. If you are a merchant in need of integrating an mPOS system, you have to install an app- or web-based virtual terminal on your device. Simple as that - the mPOS is ready for use.