

Online Payments Systems

An online payment system is an Internet-based method of processing economic transactions. It allows a vendor to accept payments over the web or over other Internet connections, such as direct database connections between retail stores and their suppliers--a common method of maintaining just-in-time inventories. Online payment systems greatly expand the reach of a business and its ability to make sales.

An **e-commerce payment system** (or an **electronic payment system**) facilitates the acceptance of electronic payment for online transactions. Also known as a subcomponent of Electronic Data Interchange (EDI), e-commerce payment systems have become increasingly popular due to the widespread use of the internet-based shopping and banking.

Credit cards remain the most common forms of payment for e-commerce transactions. It is difficult for an online retailer to operate without supporting credit and debit cards due to their widespread use. Online merchants must comply with stringent rules stipulated by the credit and debit card issuers (e.g. Visa and MasterCard) in accordance with bank and financial regulation in the countries where the debit/credit service conducts business.

Despite widespread use in North America, there are still many countries such as China and India that have some problems to overcome in regard to credit card security. Increased security measures include use of the card verification number (CVN) which detects fraud by comparing the verification number printed on the signature strip on the back of the card with the information on file with the cardholder's issuing bank.

Online payment systems typically are run by third-party corporations, such as PayPal, Google or Click2Pay. These companies make a profit by taking a small percentage of every transaction, or by signing contracts with institutions that need to make a large number of transactions.

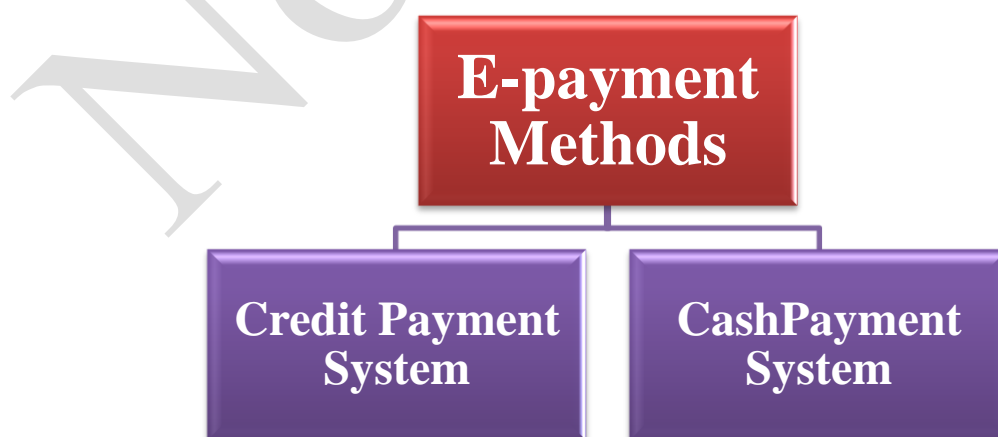
Significance

A large Internet storefront, such as Amazon.com, could not exist without the ability to take online payments. Online payment systems have leveled the playing field between large and small companies, as any of them can accept the same payment methods once they sign up with third-party payment processors.

Here are just a few things to know about online payment systems:

- **ACH payments** are electronic credit and debit transfers, allowing customers to make payments from their bank accounts for utilities, mortgage loans, and other types of bills. ACH stands for Automated Clearing House and most payment processors offer ACH payment options to their customers, especially for monthly- and subscription-based transactions. Most payment solutions use ACH to send money (minus fees) to their customers.
- A **merchant account** is a bank account that allows a customer to receive payments through credit or debit cards. Merchant providers are required to obey regulations established by card associations. Many processors (such as the ones listed below) act as both the merchant account as well as the payment gateway.
- A **payment gateway** allows merchants to securely pass credit card information between the customer and the merchant and also between merchant and the payment processor. The payment gateway is the middleman between the merchant and their sponsoring bank.
- A **payment processor** is the company that a merchant uses to handle credit card transactions. Payment processors implement anti-fraud measures to ensure that both the front-facing customer and the merchant are protected.
- **PCI compliance** is when a merchant or payment gateway sets their payment environment up in a way that meets the Payment Card Industry Data Security Standard (PCI DSS). The PCI DSS standard was created by the Payment Card Industry Security Standards Council to increase security of cardholder data and to reduce fraud.

E-payment methods could be classified into two areas:



1. Credit Payment System

- **Credit Card:** A form of the e-payment system which requires the use of the card issued by a financial institute to the cardholder for making payments online or through an electronic device, without the use of cash.
- **E-wallet:** A form of prepaid account that stores user's financial data, like debit and credit card information to make an online transaction easier.
- **Smart card:** A plastic card with a microprocessor that can be loaded with funds to make transactions; also known as a chip card.

2. Cash Payment System

- **Direct debit:** A financial transaction in which the account holder instructs the bank to collect a specific amount of money from his account electronically to pay for goods or services.
- **E-check:** A digital version of an old paper check. It's an electronic transfer of money from a bank account, usually checking account, without the use of the paper check.
- **E-cash** is a form of an electronic payment system, where a certain amount of money is stored on a client's device and made accessible for online transactions.
- **Stored-value card:** A card with a certain amount of money that can be used to perform the transaction in the issuer store. A typical example of stored-value cards are gift cards.