The Credit card

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Electronic commerce permits on-line payment between parties using an electronic surrogate of a financial tender

Using Payment Cards Online
payment card

Electronic card that contains information that can be used for payment purposes

Payment cards come in three types:

·Credit cards

·Charge cards

·Debit cards

Processing Cards Online

authorization

Determines whether a buyer's card is active and whether the customer has sufficient funds

settlement

Transferring money from the buyer's to the merchant's account

Three basic configurations for processing online payments.

Merchants may:

- Own the payment software
- Use a point of sale system (POS) operated by an acquirer
  - **payment service provider (PSP)**

    A third-party service connecting a merchant's EC systems to the appropriate acquirers. PSPs must be registered with the various card associations they support
- Use a POS operated by a payment service provider

The key participants in processing card payments online include:
- Acquiring bank
- Credit card association
- Customer
- Issuing bank
- Merchant
- Payment processing service
- Processor

Fraud

Fraudulent Card Transactions

- In the online world, merchants are held liable for fraudulent transactions

- Merchants can incur additional fees and penalties imposed by the card associations

- Costs associated with combating fraudulent transactions are also the merchant's responsibility

The key tools used in combating fraud:

- **Address Verification System (AVS)**

   Detects fraud by comparing the address entered on a Web page with the address information on file with the cardholder's issuing bank

- Manual review

- Fraud screens and automated decision models

The key tools used in combating fraud:

- **card verification number (CVN)**

  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

- Card association payer authentication services

- Negative files

virtual credit card

An e-payment system in which a credit card issuer gives a special transaction number that can be used online in place of regular credit card numbers

smart card

An electronic card containing an embedded microchip that enables predefined operations or the addition, deletion, or manipulation of information on the card

Securing Smart Cards

Smart cards are more secure than conventional payment cards

Chip and PIN

Chip and PIN is the brandname adopted by the banking industries in the United Kingdom and Ireland for the rollout of the EMV smartcard payment system for credit, debit and ATM cards.

http://en.wikipedia.org/wiki/Chip_and_PIN

Chip and PIN

replacing traditional magnetic stripe

credit and debit cards contain an embedded microchip and are authenticated automatically using a personal identification number (PIN).

Enter the PIN
If that matches
The pin that is stored on the card

= Spend money!!!!

The strenght is that you know what your PIN is

(or the person that has mugged you gets the card but dosent get the pin)

(or the person that has skimed your card and uses a camrea to record your key strokes on the numeric pad)

EMV

EMV is Europay, MasterCard and VISA, a global standard for inter-operation of integrated circuit cards (IC cards or "chip cards")

But what about
telephone, internet, and mail order—known in the
industry as card-not-present or CNP—fraud

Verified by Visa and MasterCard SecureCode (implementations of Visa's 3-D Secure protocol)

The basic concept of the protocol is to tie the financial authorization process with an online authentication.

This authentication is based on a three domain model (hence the 3-D in the name).

The three domains are:
    * **Acquirer Domain** (the merchant and the bank to which money is being paid).
    * **Issuer Domain** (the bank which issued the card being used).
    * **Interoperability Domain** (the infrastructure provided by the credit card scheme to support the 3-D Secure protocol).

The protocol uses XML messages sent over SSL connections with client authentication