Unit - 2

(anonymouty)

E-cash

- It allows funds to be transferred and items to be purchased by credit card, cheque / money order, providing secure online transaction processing

- represented by 2 models

① **On-line** - allows for completion of all types of internet transactions.

② **Off-line** - digitally encoded card, that could be used for many, instead of cash.

- similar to debit/credit card, but e-cash allow individual to conduct transaction with each other.

Debit Card

- plastic card, provides an alternative payment method to cash

  - In some case, there is no physical card, but to use on internet only.

  - instant withdraw of cash, acting as ATM Card

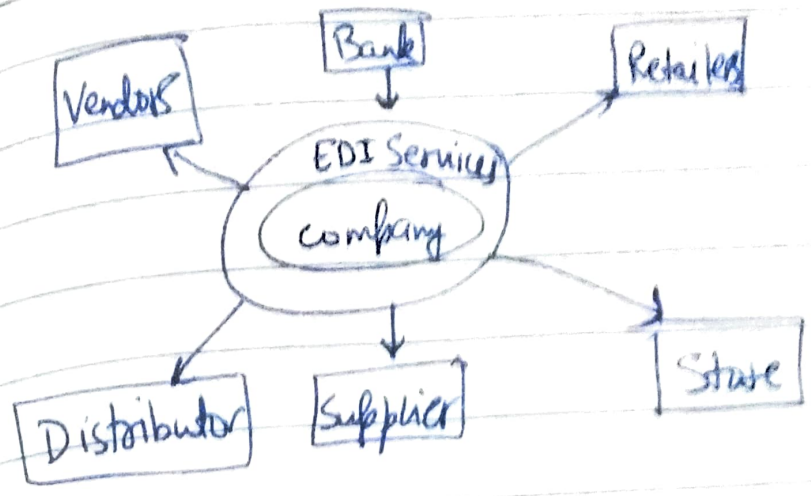**Adv** ① Avoid checker, instant transfer directly from bank.

Disadv ② Limited to existing funds in acc. to which it's linked. and a threshold

Credit Card

Concept of electric payment

- Cryptography — to hide data/ transaction detail

- When payment sent, no alterations/ reading to maintain integrity.
  message - authentication (checking integrity of information)

- most recent & usful development in cryptography is digital signature.
  (Validity of financial) transaction

EDI (Electronic data interchange)

- computer to computer exchange of information in standard EDI formats

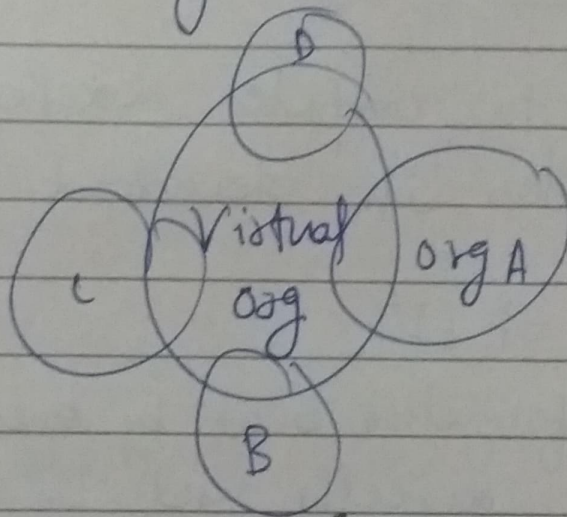## Benefits of EDI

① The information sent by one's computer can be directly used by recipient computer without manual intervention.

② transfer b/w more than 2 companies.

③ Instant delivery in desired formats

④ It eliminates data entry error to considerable extent, since formats

Virtual Organisation

- Virtual Organization are distributed "business processes".
- geographically distributed organizat whose members are bonded by common goal.

Characteristics of VO

① can be large or small
② long or short lived
③ common goal
④ quickly deliver product/services
⑤ Unifying property

Adv ① constantly satisfy customer requirement
& market needs

② inc total no. of customers as reach increases

③ service precisely tailored for customer needs

Dis Adv ① High Cost - training & maintainence

② Legal Problems

③ Trust & Respect issue

④ Cultural Issue

Physical Security

Physical Security as regarding to computer security should cover —

1) access control
2) fire safety
3) Backup utilities
4) structural collapse   5) potable system
   ⑥   Natural Disaster

___

Access Control — Security Door
                Shutter , Grills

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- continuous surveillance
- security system
- security alarm system

___

Natural Disaster & Control of Physical Security

① **fire** - affect (IS), heat, smoke
threat may be minor, major, catastrophic.
Control: ① smoke detector
  ② fire extenguisher
  ③ train employees — for proper use & evacuation

fire categories are →

△ ordinary combustible
□ flammable liquid
○ electrical equipment
☆ combustible material.

② **Environmental failure** - temperature,
clean air, air conditioning, humidity &
water control

③ **Earthquake** : keep computer in safe areas
away from glass

④ **Lightening** - electrical charge of air
  - need surge suppression.
  - uninterreptable power supply.
  - backups

Biometrics

- biometric is used as one of the method for physical access control.

- identification based on characteristics that are unique to each & every indiv

- eg
  1) voice
  2) finger print
  3) Retina
  4) handwriting style

Benefits

1. Increase level of security
2. Fraud detection
3. Greater Convinience
4. High Accountability

- cannot be borrowed, stolen or forgotten.
- no forging.
-

Characteristics

1. Universality - all human being have same physical characteristic
2. Uniqueness - all characteristic are unique
3. Permanence
4. Peformance - (Accuracy)
5. Acceptability.

How are they designed?

2 main issue designers face —

① Storage & protection of Template

Biometric Systems have to scan, store/retrieve template & match.

There can be 3 modes for protection of template - no protection, data encryption, digital signature

② Accuracy of biometric Setup
- speed
- system performance comm. interface

Legal Challenges
- Govt is beginning to mandate — -
- privacy & data protection requirement.

Social Issues

1. elemat of trust
2. human factor engineering - race, disabilit
3. Accuracy
4. Clarity of Purpose