PERTEMUAN XIV

NETWORK



Digital Signatures and Digests

- Digital signature: pesan elektronik yang secara unik mengidentifikasi pengirim sebuah pesan.
- Digest: pesan yang digunakan untuk menciptakan tanda tangan digital biasanya adalah ringkasan digital (digital Summary).
  - Apabila ada perubahan pada character individual dalam dokumen aslinya, nilai dalam intisari juga akan berubah. Ciri ini merupakan alat untuk memastikan bahwa isi dokumen bisnis tdk diubah atau dirusak pada selama masa pengiriman.



Jenis – Jenis Network

- Dibagi kedalam 2 bagian :

1 *Local area network* (LAN) — Jaringan komputer dan peralatan lainnya, seperti printer yang lokasinya dekat antara satu dengan yg lainnya (biasanya dalam satu gedung)

2 *Wide area network* (WAN) — mencakup wilayah geografis yang luas.



Jenis – Jenis Networks

- Apakah Intranet?
- The term Intranet refers to internal networks that connect to the main Internet.
- They can be navigated with the same browser software, but are closed off from the general public.
- Apakah Extranets?



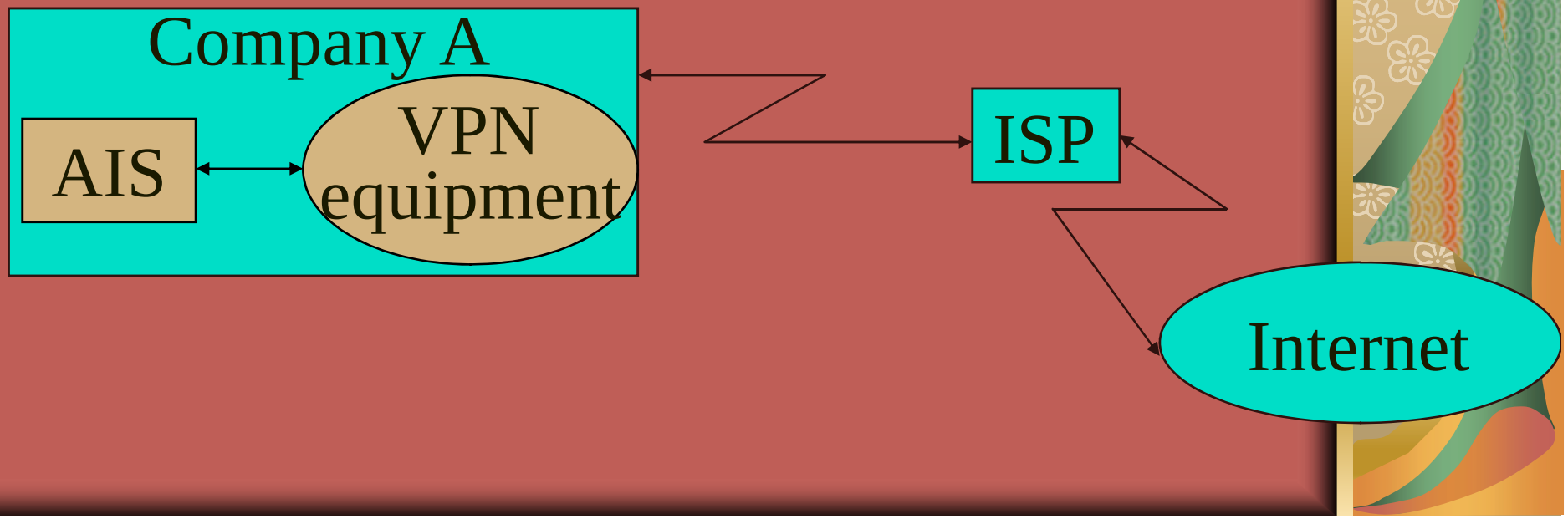
Types of Networks

- Extranets link the intranets of two or more companies.
- Either the Internet or a VAN can be used to connect the companies forming the extranet.
- Value-added networks (VAN) are more reliable and secure than the Internet, but they are also expensive.



Types of Networks

- Companies build a virtual private network (VPN) to improve reliability and security, while still taking advantage of the Internet.

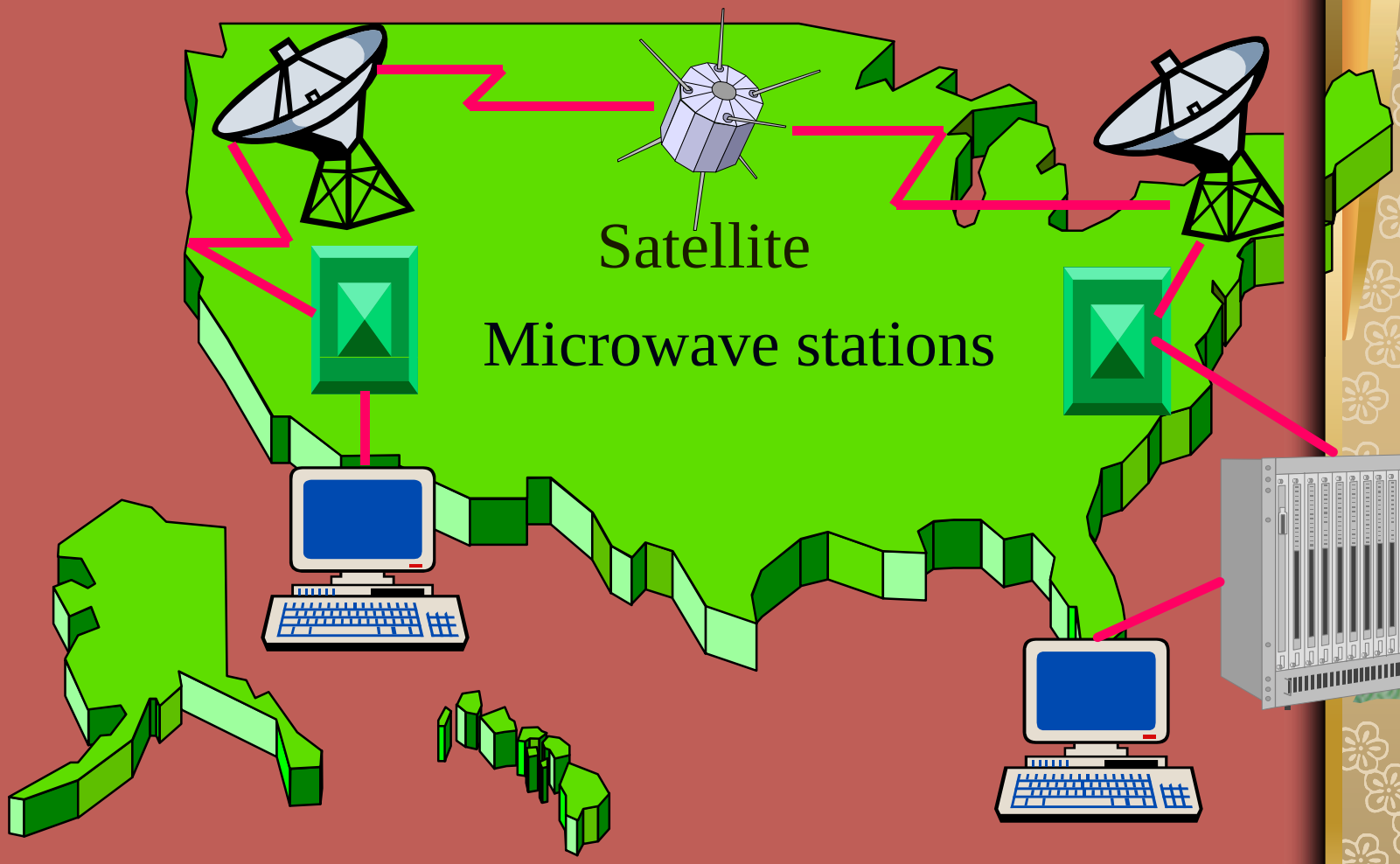


Communications Channels

- A communications channel is the medium that connects the sender and the receiver.
  - standard telephone lines
  - coaxial cables
  - fiber optics
  - microwave systems
  - communications satellites
  - cellular radios and telephones



Communications Channels



Network Configuration Options

- Local area networks (LANs) can be configured in one of three basic ways:

1. Star configuration
2. Ring configuration
3. Bus configuration



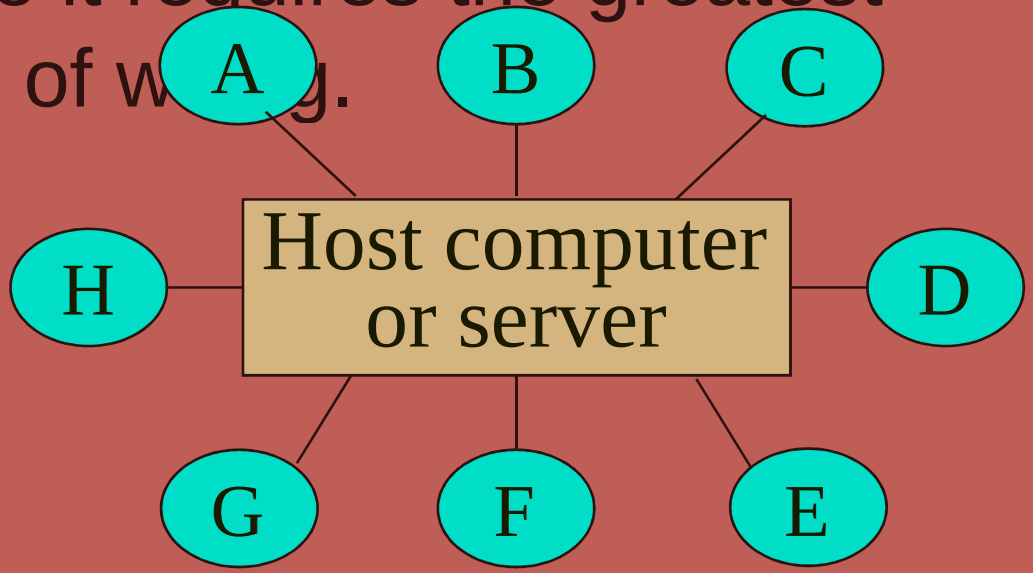
Network Configuration Options

- A star configuration is a LAN configured as a star; each device is directly connected to the central server.
- All communications between devices are controlled by and routed through the central server.
- Typically, the server polls each device to see if it wants to send a message.



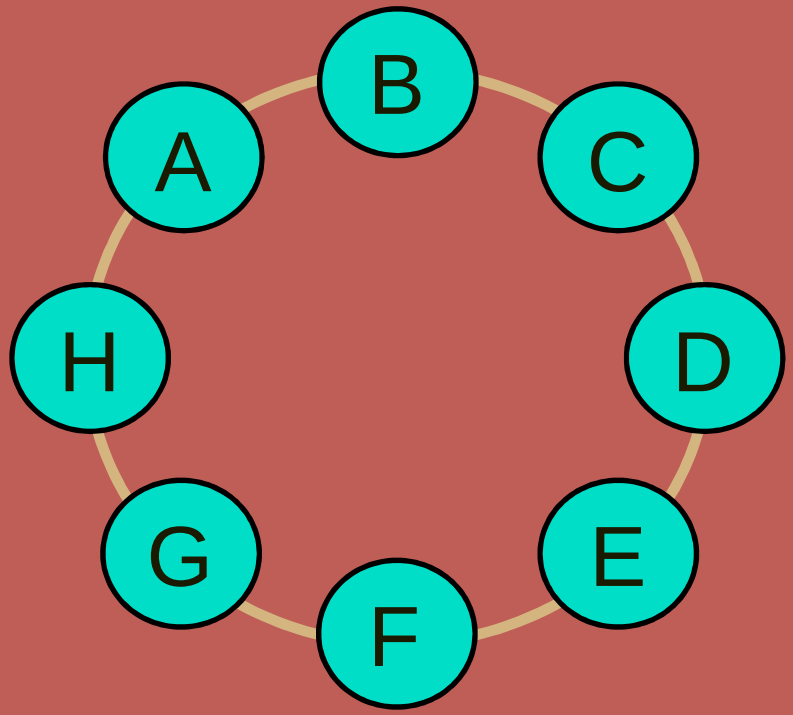
Network Configuration Options

The star configuration is the most expensive way to set up a LAN, because it requires the greatest amount of w g.



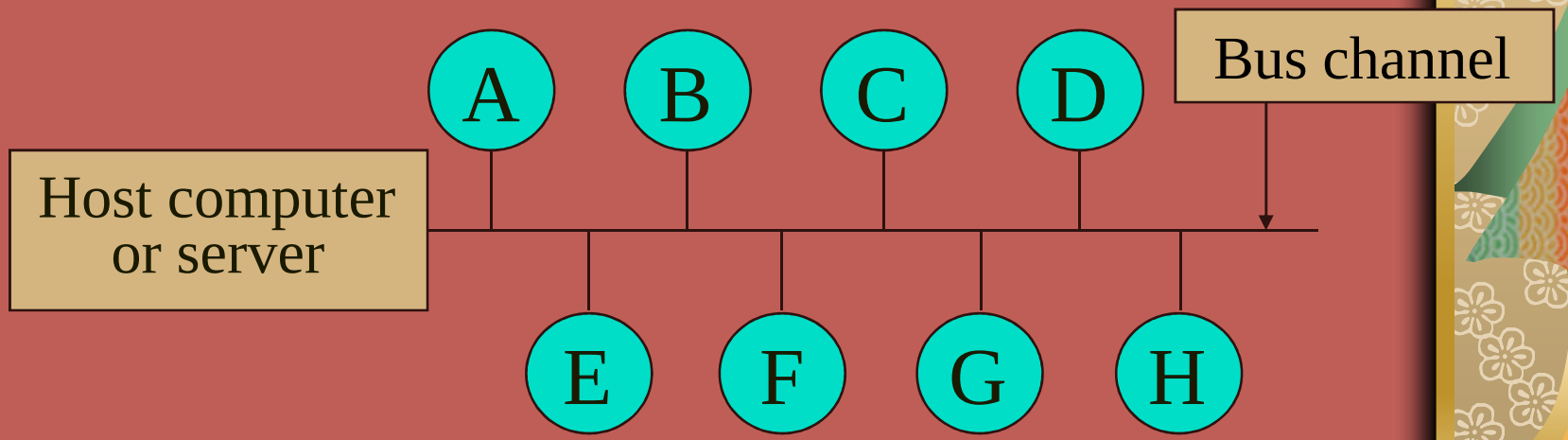
Network Configuration Options

In a LAN configured as a ring, each node is directly linked to two other nodes



Network Configuration Options

- In a LAN configured as a bus, each device is connected to the main channel, or bus.
- Communication control is decentralized on bus networks.



Network Configuration Options

- Wide area networks (WANs) can be configured in one of three basic ways:

1 Centralized system

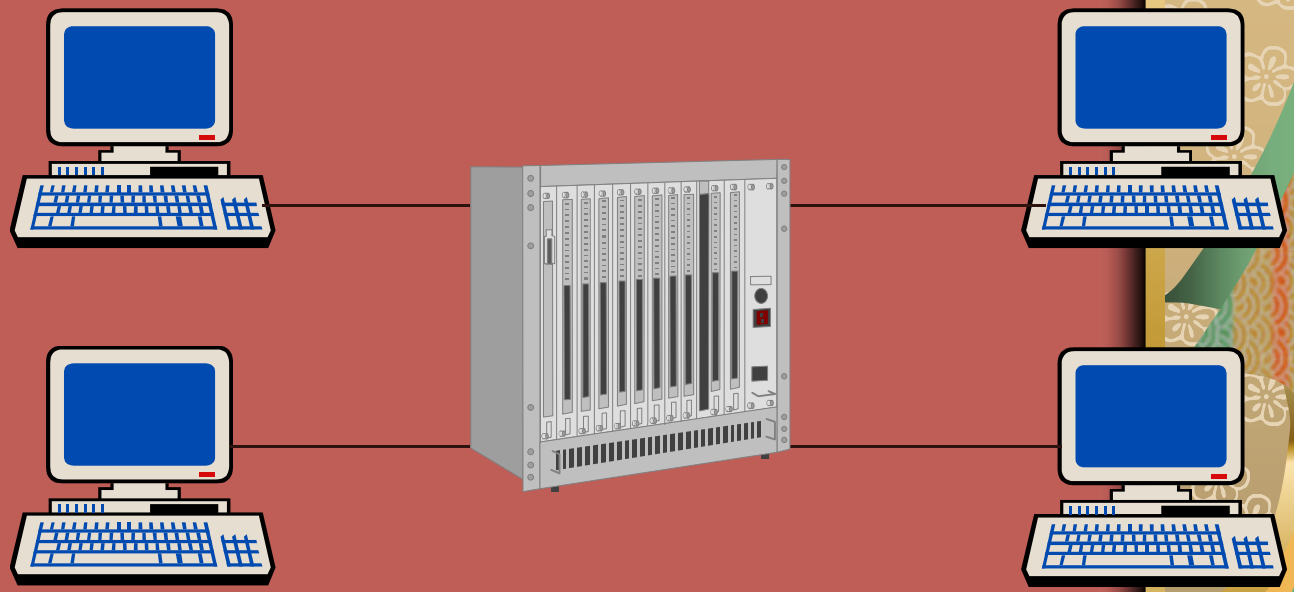
2 Decentralized system

3 Distributed data processing



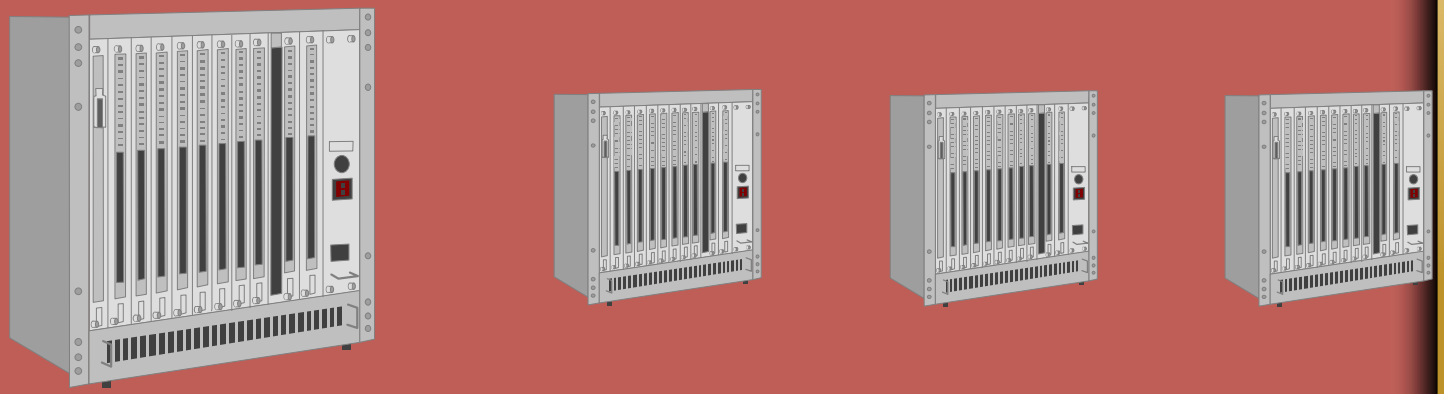
Network Configuration Options

- In a *centralized* WAN, all terminals and other devices are connected to a central corporate computer.



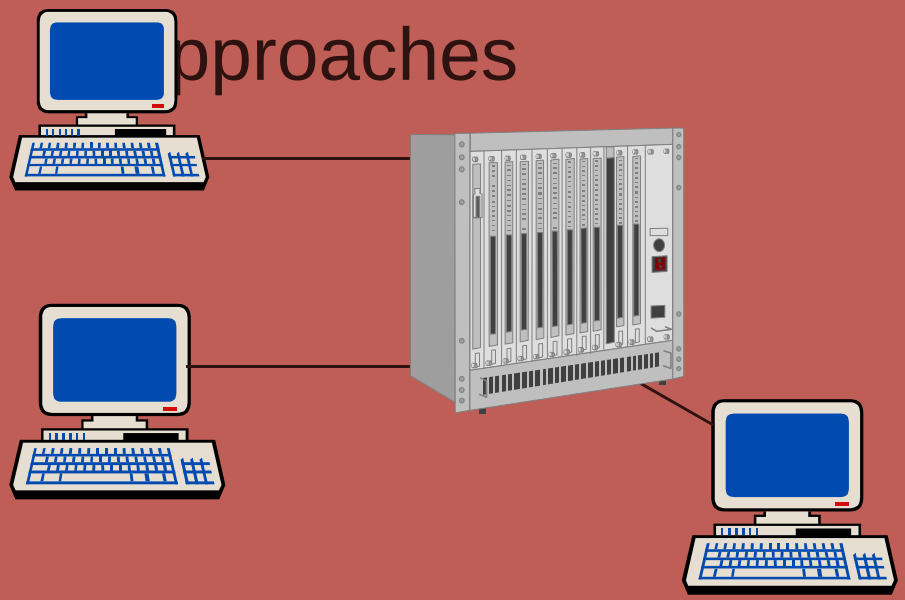
Network Configuration Options

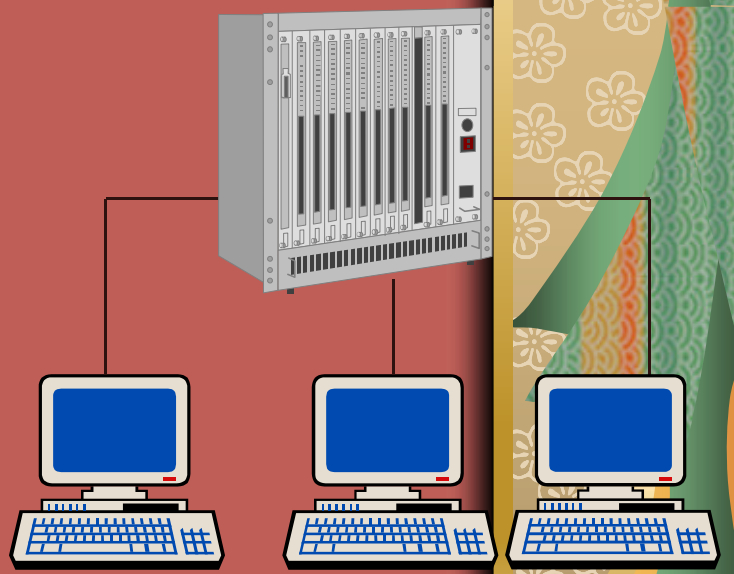
- In a *decentralized* WAN, each departmental unit has its own computer and LAN.
- Decentralized systems usually are better able to meet individual department and user needs than are centralized systems.



Network Configuration Options

A *distributed* data processing system WAN is essentially a hybrid of the centralized and decentralized approaches





Network Configuration Options

- Many WANs, and most LANs, are set up as client/server systems.
- Each desktop computer is referred to as a client.
- The client sends requests for data to the servers.
- The servers perform preprocessing on the database and send only the relevant subset of data to the client for local processing.



TERIMAKASIH

