Networks and Network Protocols

1. LAN vs WAN

2. LAN
   - Topologies \textit{(trans)}
   - LANtastic, Novell, Microsoft
   - NFS

3. WAN
   - ARPANET, BITNET, NSFNet -> Gateways -> INTERNET
   - ATM
   - Private (for ex. UPS) ... intranet
   - INTERNET services
   - Protocols/services: e-mail, newsgroups, ftp, http, ???
   - HTTP: graphics, video, sound, interactivity
     - Net Browsers ... Mosaic ... Netscape, Microsoft Internet Explorer
     - Service providers ... America OnLine (AOL), CompuServe, LR-Net, CyberPort ... and thousands more
   - Web Commerce
     - Web sites and search engines ... yahoo.com, infoseek.com and thousands more
     - Sales ... Amazon.com, ebay.com, etc.
     - Control ... telephone vs cable companies ... integrated service
4. Protocols

- concept ... agreement on how to communicate
- bus with broadcast, ring with tokens, point-to-point with packets
- uucp, TCP/IP,
- open standards versus proprietary protocols
- ISO Model ... layers ... modularized system

Transparencies

Bus Topology
Ring

Messages move in one direction only

Point-to-Point Irregular Topology