

Checklist for Web Book

Chapter 3: Computer Networks and the Internet

Know the context and significance of the following people, things, and concepts

Introduction

- Large computers required/were
 - Shared
 - Accessed locally
 - Standalone

History

- Origins
- Sputnik
- ARPA
- Circuit-switching network and vulnerabilities
- Distributed network—redundancy and strengths
- Growing needs for network
- Arpanet and IMP
- TCP/IP
 - Transmission Control Protocol
 - Packets/datagrams
 - Packet loss
- Internet Protocol
 - Address scheme
 - IP address
- ARPANET & NSFNET
- Key changes in the Internet
 - Internet growth in the 1980s
 - Domain Name System (DNS)
 - Domain suffixes
- The 1990s
 - The World Wide Web
 - Bush's "As We May Think"
 - Hypertext
 - The Web goes commercial
- Internet Administration (ISOC)
- Future of the Internet: Internet 2

Network Terms and Types

- Types of networks
 - LAN
 - WAN

- Network hardware
 - Physical layer
 - Ethernet
 - Twisted pair, coaxial, CAT-5
 - Network interface card (NIC), Ethernet card
 - Hub including switching hub
 - Packet sniffer
 - Fiber optic cable
 - Wireless, 802.11.b, Wi-Fi, WLAN, hotspot
 - POP
 - Modem (modulate, demodulate)
 - DSL, cable modems, broadband
 - ISP
 - Backbone
- Network Software
 - Network operating system
 - Application layer
 - Client vs. server
 - Address, host name
 - Port
 - Firewall
 - Protocols: HTTP vs. FTP
- Network Services
 - Peer-to-peer (P2P)
 - Napster

Issues

- Viruses
- Rogue programs
- Denial of Service attacks
- CERT
- Hoaxes
- Spam
- Cookies
- Digital Divide