



Internet Overview



What is the Internet?

- A network of networks, bringing together people, information, hardware and software around the World.
- You can connect to the Internet:
 - dialing out to an Internet Service Provider (ISP) using SLIP (Serial Line Internet Protocol) or PPP (Point to Point Protocol).
 - directly through Cable Modem, DSL (Digital Subscriber Line), dedicated ISP connection, using TCP/IP (Transmission Control Protocol/ Internet Protocol).
 - dialing out to a computer connected to the Internet using a common communications package and using Internet packages in the remote computer.

How does it work?

- Through a Domain System Structure
 - for example an Internet address (URL) like home.ubalt.edu tell us that this address: (a) belongs to the .edu -- education -- domain, (b) is part of a network called ubalt (of course the name of the UB network), and (c) that the machine (computer) name is home.
 - there are many different (top) domains like gov, mil, com, net, etc, with new ones being added presently.
 - each computer is assigned an IP number, like 198.202.0.35 -- the home.ubalt.edu IP number.
 - a computer with a Fully Qualified Domain Name (FQDN) has a fixed IP number and name registered in the Internet.

What can you do in the Internet?

- Communications
- Information search
- File manipulation
- Remote control of other computers
- Cruise the Net through hypermedia
- Electronic Commerce

Communications

- Send/receive **e-mail**: the main use of the Internet.
- Send/receive **Chat room and Instant Messages**: same time message exchange.
- Participate in **Web Forums**: discussions, help and information.
- Participate in **Online Communities**: Facebook, MySpace, YouTube.
- Participate in **Audio and/or Video Conferencing**: same time voice and/or video communications.
- Participate in mailing and discussion **lists and newsgroups**: you can get help and receive news.

Information search

- Web **search engines** like Google, Ask.com, etc.
- Web **site directories** (portals) like Yahoo, MSN, etc.
- former tools like Gopher, Veronica and WAIS are rarely used today.

File transfer and remote control

- **Web browser**: the number one way to download (save a file to a local machine). At UB you can also upload files to your Web space.
- **FTP**: the File Transfer Protocol is the most used mean to upload files in the Net, and a close second to Web browser in file downloads.
- **Telnet/SSH**: allows you to login remotely in another computer you have an account and execute command line, non-graphical, commands.

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Hypermedia Net surfing

- The Internet graphical user interface: the World Wide **Web**.
- Main browsers: Internet Explorer, Firefox and Netscape.
- Most commonly used tool, as you know since you are reading this.

Electronic Commerce

- Use of the Web graphical interface and technology as a front-end to a business.
 - traditional businesses with Web storefronts.
 - new businesses with no or very few brick and mortar storefronts -- the .com companies.
- The basis of the new Digital Economy.
- A very important use of the Internet, second only to communications and online communities.