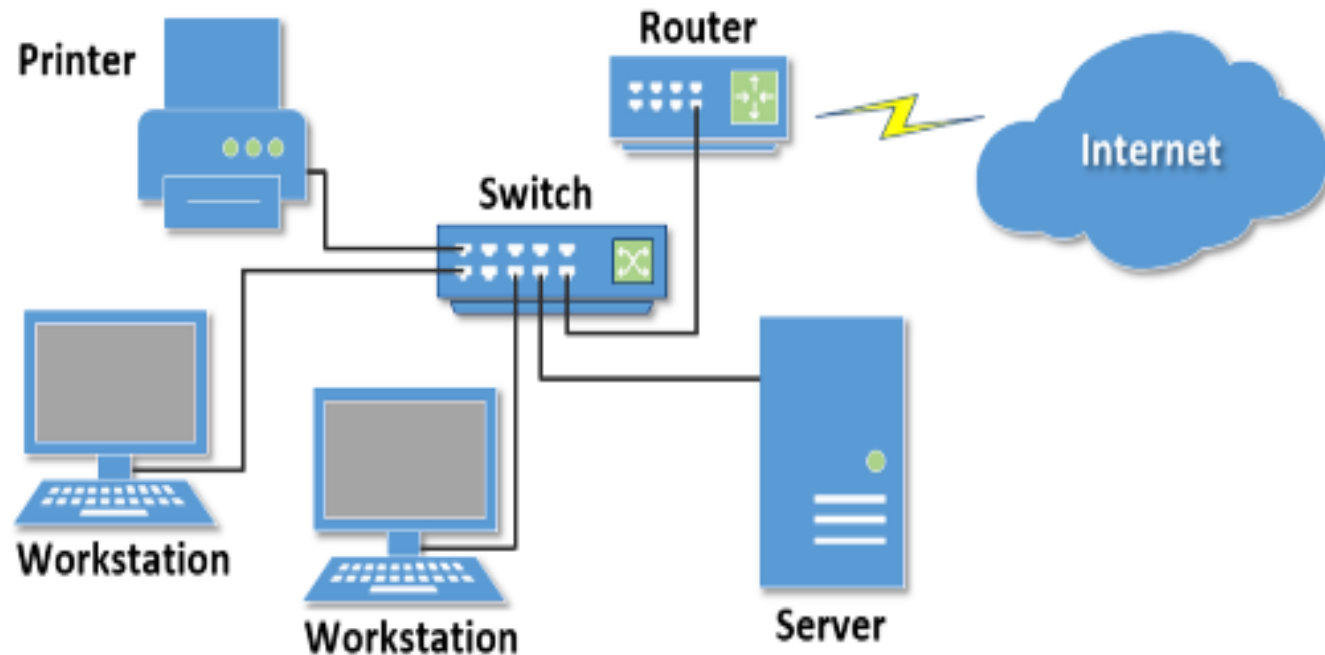# The Internet

Basics of websites (again)

- Three parts to put a website online…
  1. Domain name
  2. Web server
  3. Web page files

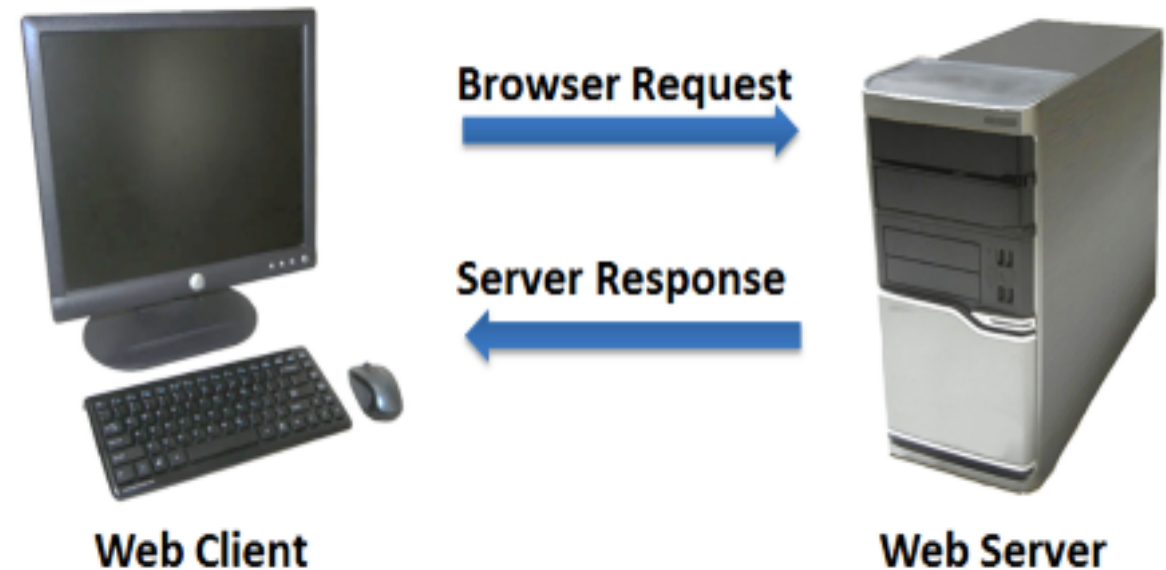- Third Party Hosting Companies

The Internet

The Internet

- The Web != the Internet
- Beginning: circa 1969
- "Worldwide network of interconnected computers and related equipment"
- Internet IS a network
- "backbone" for local networks
- Email (1971)
- Telnet (1972)
- FTP (1973)
- Gopher (1991)
- Command-line based (mostly)

Networks

- Computers connected – communicating and sharing "resources"
  - Resources: web pages, PDFs, image files, whatever (not just web pages)

- Network Models (typologies)
  - Peer-to-peer
  - Star
  - Hierarchical
  - Client/Server ← important (Internet)

- Client: requests type of service to get to "resources"

- Server: fulfills the request

Browser Request

Server Response

Web Client

Web Server

Protocols

- Rules the describe methods to communicate
  - Computer-to-computer language
- TCP/IP – transmission control protocol / internet protocol
  - TCP – the envelope
  - IP – the address on the envelope
- IP numbers
  - Four "octets" example: 128.151.77.39 = rochester.edu
- FTP - File Transfer Protocol
- HTTP – Hypertext Transfer Protocol

DNS - Domain Name System

- ICANN – assigns domain names
- Translation of numbers into human-friendly names
  - 69.89.31.103 → urcsc170.org
- Uniform Resource Identifiers (URI)
  - Resources on the internet
    Uniform Resource Locator (URL)
- Example **http://www.rochester.edu/college/honesty/index.html**
  - **http://** ...protocol
  - **rochester.edu** ...domain name (two parts)
    - **.edu** ...Top-level Domain (TLD)
  - **/college/honesty/** ...path
  - **index.html** ...resource

Growth of the Consumer Internet and the Web

- Cheap PCs (Apple I: $666.66*, 1976)

- .com – ICANN allowed (March 15, 1985)

- ISPs – Internet service providers (CompuServe, 1985)

- The Web (Tim Berners-Lee, 1989)

- Graphical User Interface Web Browser (Mosaic, 1992)

* Inflation adjusted price: $2,949