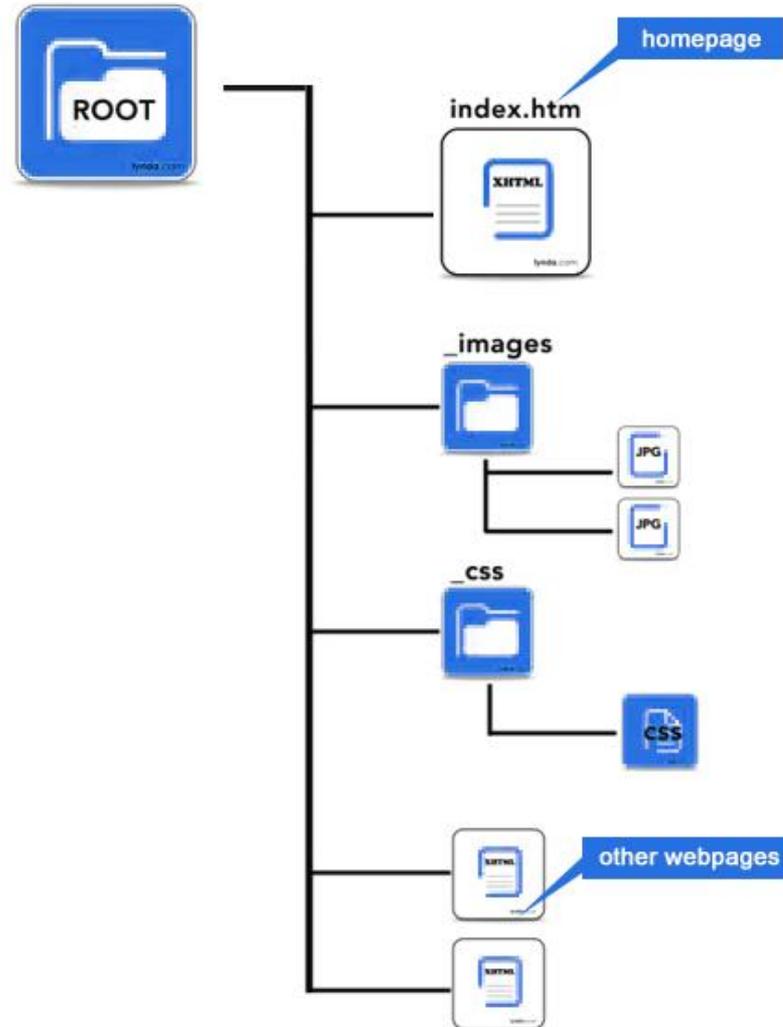# Website basic

- Getting Domain name
- Understand Web address
- IP address

# Basic Site Structure

# Web basics

- What is an index page?
- Current web design practices
- What is XHTML?
- What is Javascript?
- What is CSS?
- File naming conventions

# Tools to build/design a website

- *Adobe Dreamweaver (PC/Mac)*
- *Pagebreeze (free)*
- *Microsoft Expression (PC)*
   *old frontpage*
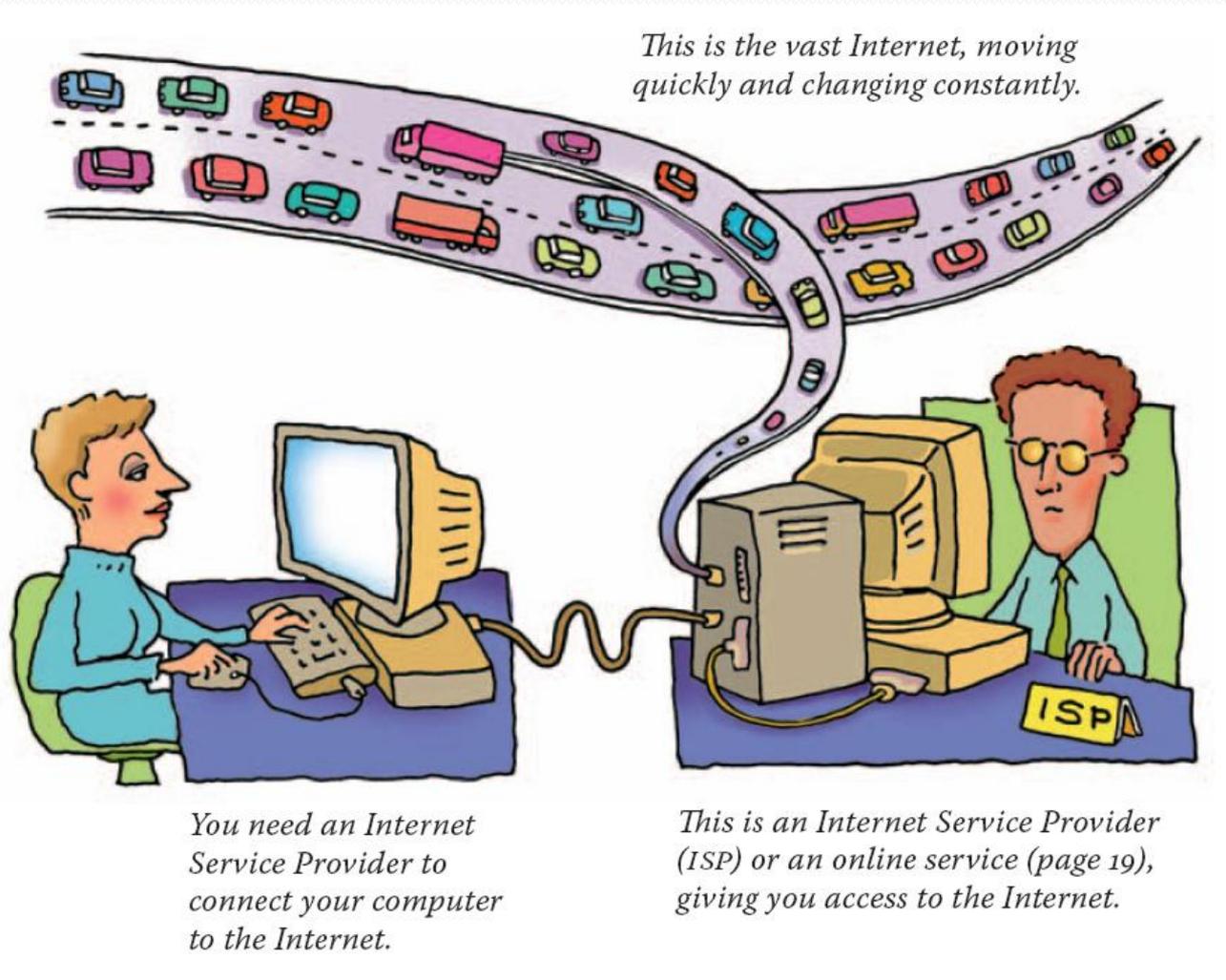- *i Web (Mac)*
- *Front page*

# What is the Internet

"*It's a worldwide collection of computer networks – a network of networks – sharing digital information via a common set of networking and software protocols.*"

*HTML & XHTML – The Definitive Guide*

## History of the Internet

- *Began in the late 1960s, funded by the US Dept. of Defense.*
- *Opened to businesses and individuals in early 1990s.*
- *Took off around 1993, with the development of World Wide Web.*

# *The Internet*



This is the vast Internet, moving quickly and changing constantly.

You need an Internet Service Provider to connect your computer to the Internet.

This is an Internet Service Provider (ISP) or an online service (page 19), giving you access to the Internet.

## Internet, Intranet, and Extranet

- **Internet**
  - Worldwide public.
- **Intranet**
  - Private networks.
  - Restrict access to members only.
  - Unconnected to outside institutional boundaries.
- **Extranet**
  - Semi-private networks.
  - Restrict access to members only.
  - Provide services to members via the Internet.

## *The World Wide Web*

- *WWW organizes the Internet's vast resources to give users easy access to information.*

- *It connects documents to one another -- as well as to audio, video, and image files -- with hyperlinks.*

- *The Internet is not the WWW. The WWW is simply one aspect of the Internet.*

## World Wide Web

- *1989 Tim Berners-Lee developed concept*
- *HyperText Markup Language (HTML) was born with the World Wide Web.*
- *1990 (or so) Lynx*
- *1993 Marc Andreesen developed Mosaic: First GUI browser*
- *1994 Netscape*
- *1995 Web went commercial*
- *2000 E-Commerce stocks crashed*

## IP, DNS

- *IP address*

  *- Internet Protocol Address, the identification of every computer connected to the Internet.*

  *- Format: [0~255].[0~255].[0~255].[0~255]*

- *DNS*
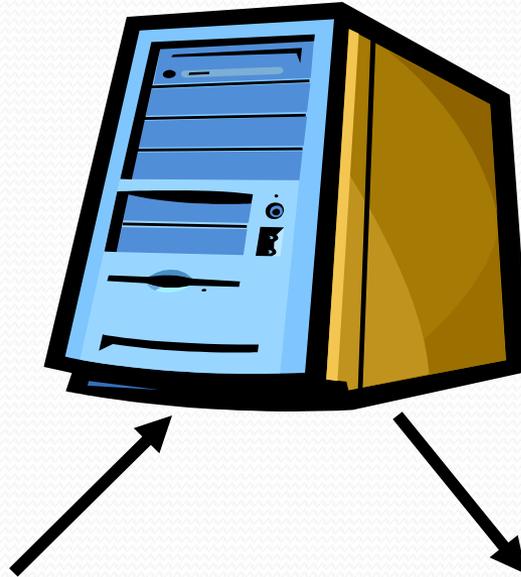  - *Domain: a subset of Internet, e.g. Microsoft.com, IBM.com.*
  - *Domain Name: refers to the machine in a specific domain. e.g. www.microsoft.com, www.depaul.edu.*
  - *Domain Name Sever: special computers that keep tables of machine names and IP addresses.*

# Website basic

- Getting Domain name
- Understand Web address
- IP address

# Domain Name Server



www.yahoo.com
(Domain Name)

64.58.76.223
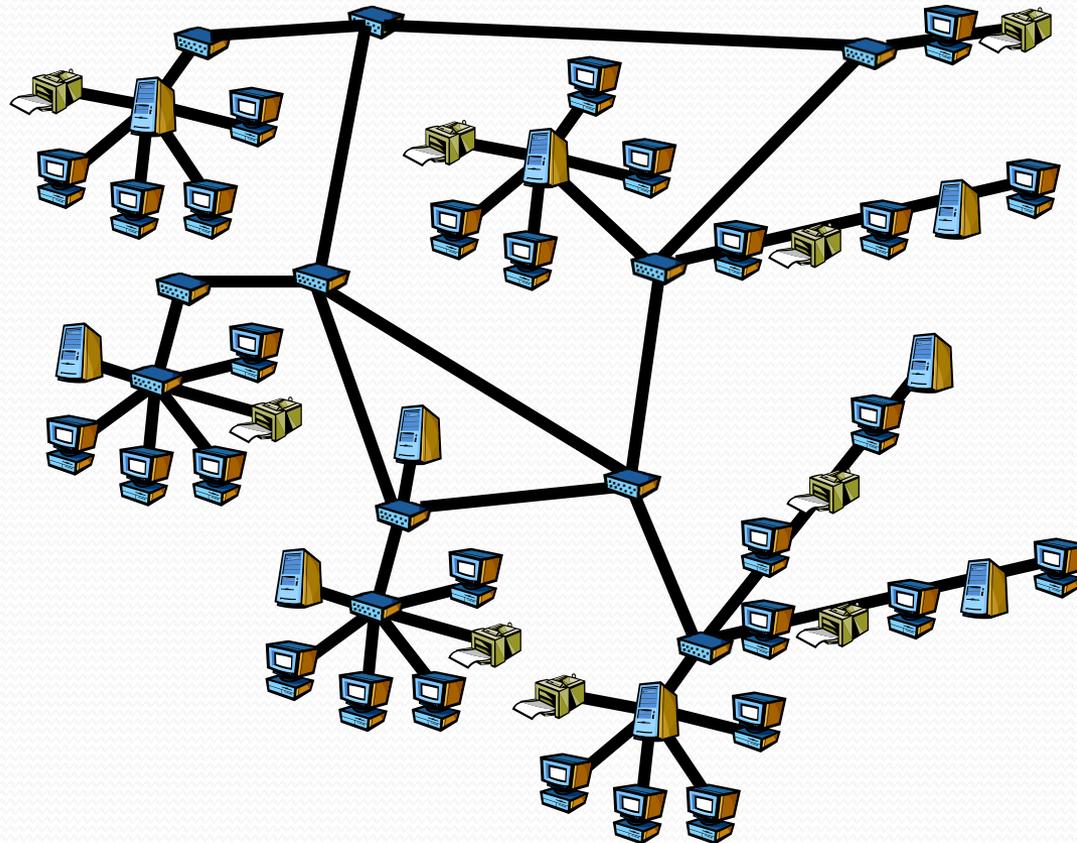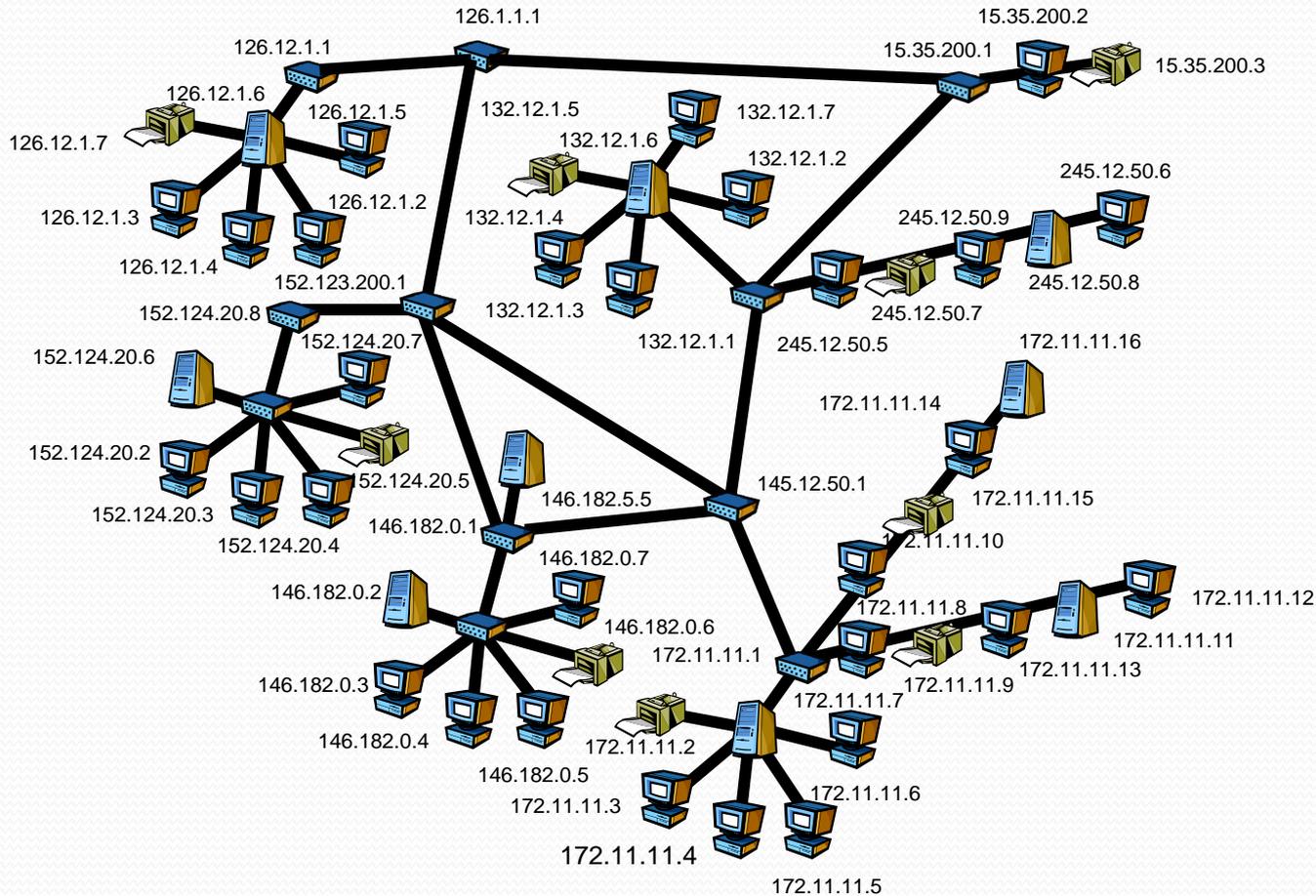(IP Address)

## IP Address – A Way to Find Yours

http://www.whatismyip.com/

# Domains

- **com** *Usually a company or other* commercial *institution or organization, such as www.ibm.com*
- **edu** *An* educational *institution, such as www.depaul.edu*
- **gov** *A* government *site, such as www.irs.gov*
- **mil** *A* military *site, such as www.af.mil (Air Force)*
- **net** *Gateways and other administrative hosts for a network*
- **org** *A* private organization, *such as www.greenpeace.org*

- *Each country also has its own top-level domain*
  - **au** *Australia;* **ca** *Canada;* **fr** *France;* **uk** *The United Kingdom. These also have sub-domains of things like* **ac.uk** *for academic sites and* **co.uk** *for commercial ones*
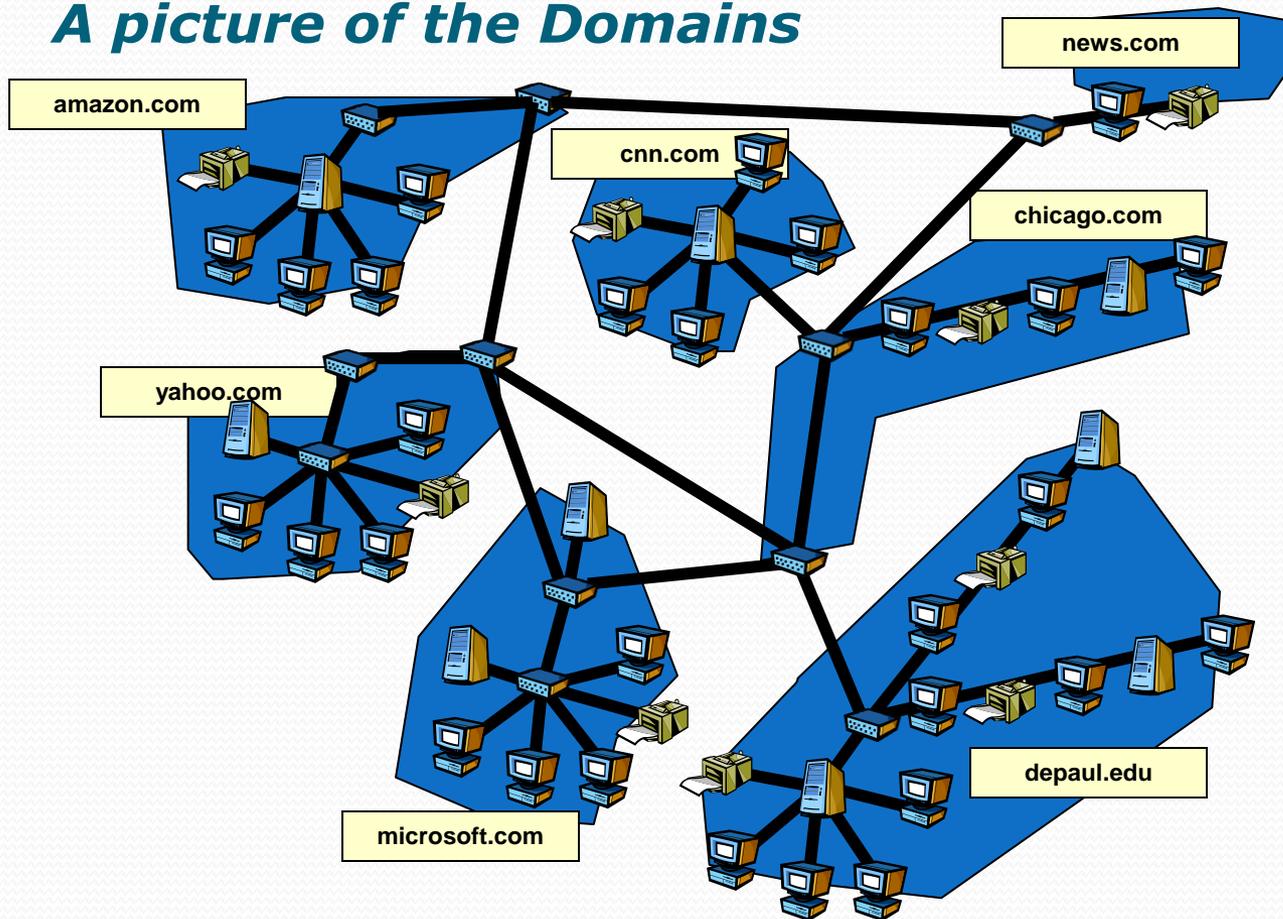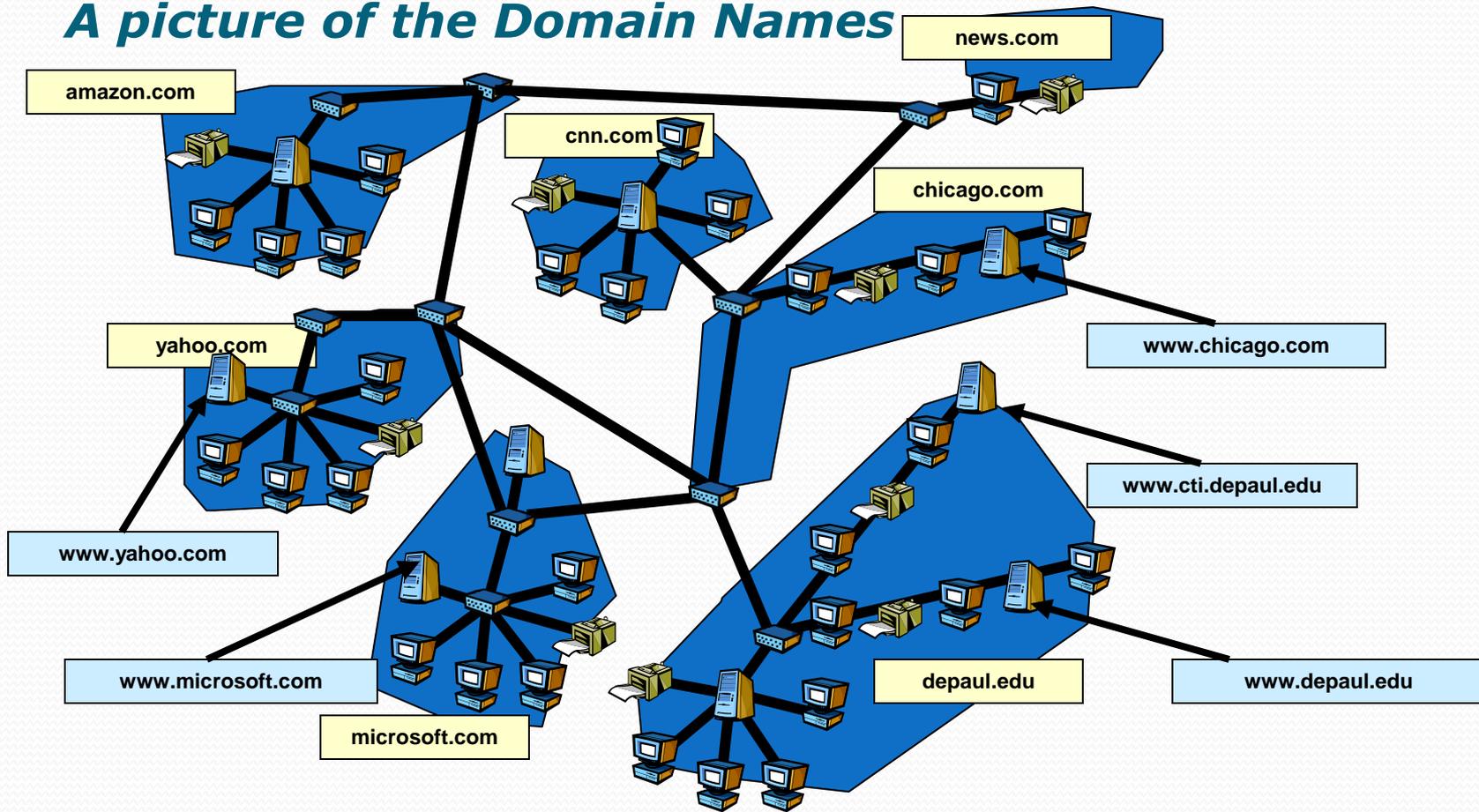
# A picture of the Internet

# *A picture of the IP address*

# A picture of the Domains

A picture of the Domain Names

## Server/Client/Browser

- *Server*

  *The computers that serve up documents – "information providers".*

- *Client*

  *The computers that retrieve and display documents for us – "information consumers".*

- *Browser*

  *Computer applications that run on the client-side to access and display HTML documents – "information viewers".*

## *Server is Hardware and Software*

- *It is a computer – and can be most any computer with a permanent connection to the Internet*
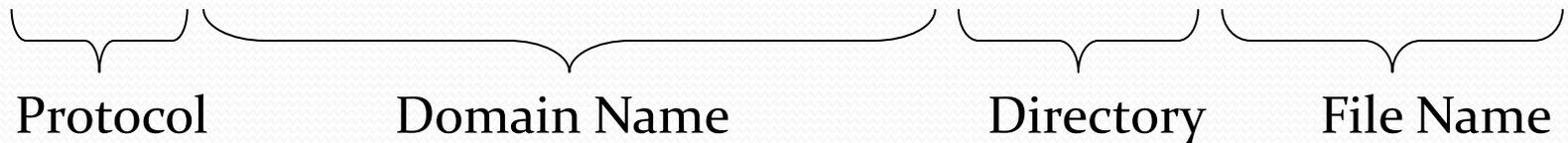- *The computer must run Internet Server software*
  - *Microsoft IIS*
  - *Apache*

## URL

- *URL – Uniform Resource Locator*
  - *Protocol: a set of rules describing how to transmit data. E.g. "http", "ftp", "https"*
  - *Domain name or server IP address: E.g. "www.yahoo.com" or "64.58.76.223"*
  - *Directories*
  - *File name: "FileName.FileExtension" E.g. "MyFirstPage.html"*

## *URL: Universal Resource Locator*

- *Four parts to each one (some parts optional)*
  - *Protocol*
  - *Domain name or server IP address*
  - *Director(ies)*
  - *File name*

http://facweb.cs.depaul.edu/yqwang/index.htm

Protocol    Domain Name    Directory    File Name

*How does information flow?*

- *Type URL in Browser <enter>*
- *Get IP Address from Domain Name Server*
- *Get Document from Web Server*
- *Show Document in Browser*

- *Leaving out some subtle steps*

# How does information flow?

1. *(You) Enter the URL in a browser*
2. *(Browser) Get IP address from Domain Name Server*
3. *(Browser) Send request to that web server*
4. *(Server) Verify if the request is allowed*
5. *(Sever) Send the document to your browser*
6. *(Sever) Log information*
7. *(Browser) Render the received document and display it*
8. *(You) Read the document and continue browsing…*

## What r Web Pages

- *TEXT with content tell a browser what to do.*
- *And we just name it \*.htm\* \*.html\**
- *Let the web authoring software write the code.*
- *But, u should learn to view source code, know how to alter it.*

## What does that document look like?

- It may be a simple image or text, but it is likely an HTML document.

- Learn to view source code

## HTML

- *HTML stands for Hypertext Markup Language*
  - *The "markup" is extra information placed with text to describe how the text is to be interpreted by the browser.*

- *An HTML file is a text file. It can be created using any text editor, such as Notepad*

- *Tags specify:*
  - *The logical structure of elements on a Web page, such as the heading, a paragraph, a table, a list, etc.*
  - *Visual appearance of elements on a Web page, such as bold, italics, font size, background color, etc.*
  - *Links to images and other media, other Web pages, or other parts of a Web page*

## Tags

- *Pairs*
  - *Pairs <p> </p>.*
  - *they are placed in small angle brackets <p>.*
  - *Note the slash "/" before the word means "close"*

## HTML Example

```
<HTML>

<HEAD>
<TITLE>My First Page </TITLE>
</HEAD>

<BODY>
Hello, world.
</BODY>

</HTML>
```

**HTML Skeleton**

```
<html>
<head>
<title>Title of this web page</title>
</head>
<body>
Stuff you want to present on this page
</body>
</html>
```

## HTML

- *What's in* **<head>**
  - *The title of your document*
  - *Parameters the browser may use when displaying your document*
- *What's in* **<body>**
  - *The actual content of your document*
    - *Tags (advise the browser how to present the content)*
    - *Content (things shown on your web page)*

*The Flesh on an HTML document*
- *Tags + Contents + Comments*
- *Comments*

  *<!-- some explanation of your code -->*
- *Contents <body>*

  *- Text*

  *- Multimedia*

## The Flesh on an HTML document

|  | Browser | Screen | User |
|---|---|---|---|
| Tag | Read and follow it to present content | Won't show | Can only see it in the source file |
| Content | Show it | Show it | Can see it both on the screen and in the source file |
| Comment | Ignore it | Won't show | Can only see it in the source file |

## Naming in HTML

- *Files should begin with a letter*
- *Files should not contain spaces*
- *HTML is case sensitive*
  - *Be consistent*
  - *Lowercase is preferred*

- Graphic Design vs. Digital Webpage Design, especially for different devices;
- Multimedia/movie/game, frame rate
- HD resolution vs. Web resolution, and frame rate.
- Print resolution vs. Screen resolution;
- Screen's measurement unit - PIXEL;
- Embed video from UTube.