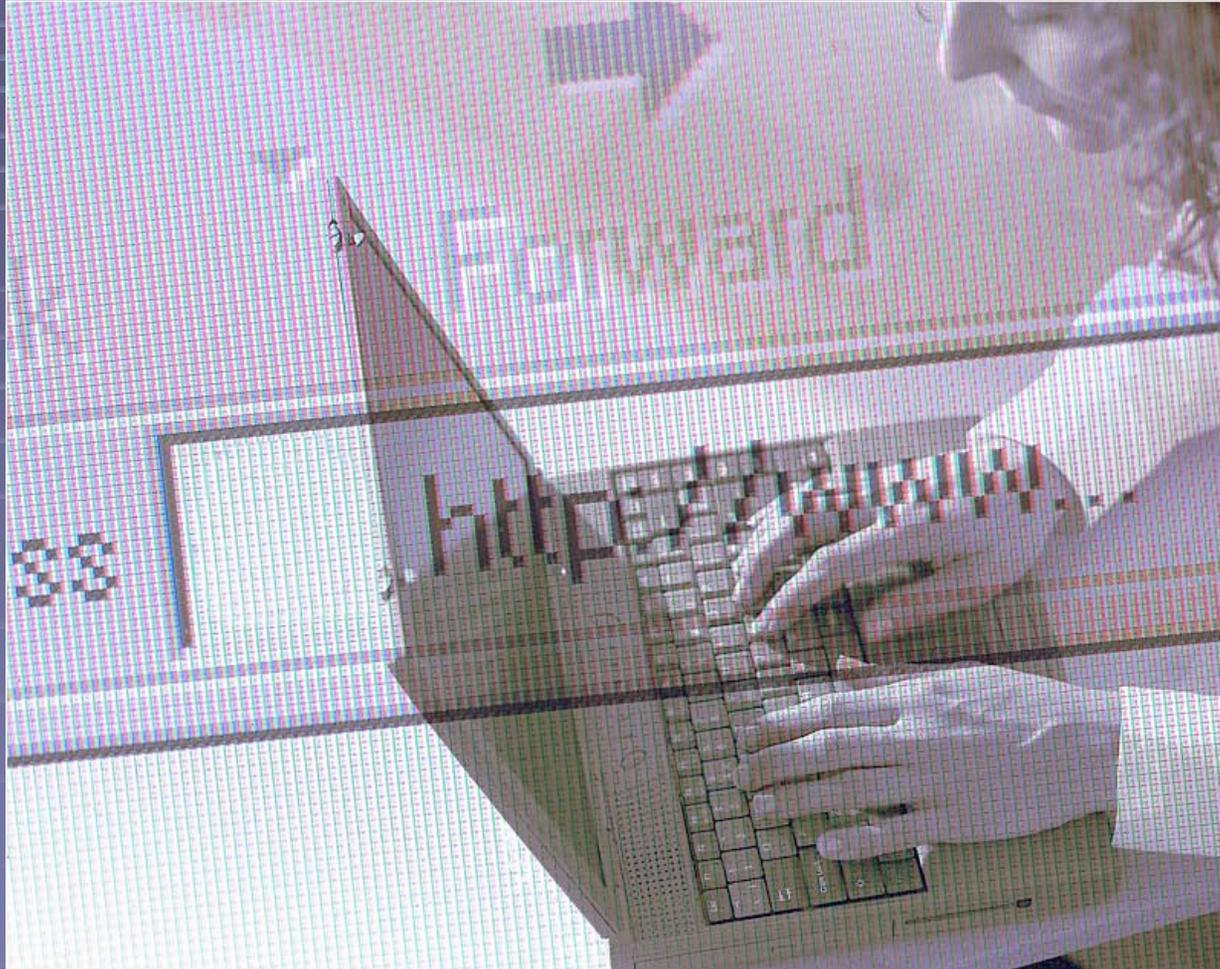


How Websites Work



An Overview of Web Development

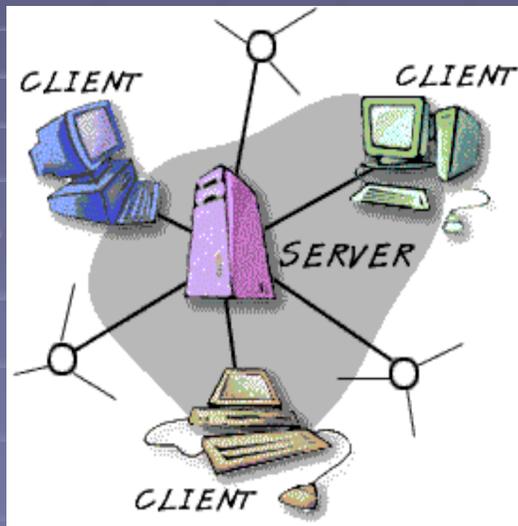
Overview of Class

Fundamental steps and terminology used in website development:

- **What's the difference between the term "internet" and "world wide web"?**
- **Choosing a domain name and registration**
- **Web hosting**
- **Uploading/downloading files**
- **Web design software options**
- **Site architecture**
- **Site navigation**
- **File management**
- **Using type, graphics and multimedia**

What is the internet?

The Internet is a worldwide collection of computer networks, cooperating with each other to exchange data using a common software standard.

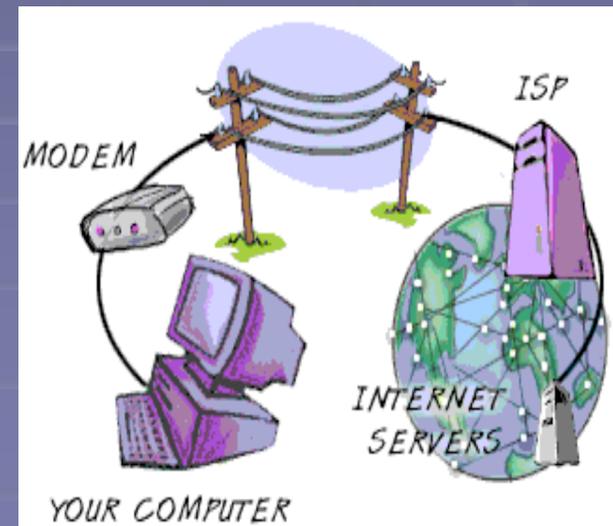


Through telephone wires, cables and satellite links, Internet users can share information in a variety of forms.

What is the internet?

The size, scope and design of the Internet allows users to:

- Connect easily through ordinary personal computers;
- Exchange electronic mail (E-mail) with friends and colleagues with accounts on the Internet;
- Post information for others to access, and update it frequently;
- Access multimedia information that includes sound, images and even video.



Connecting to the Internet

In order to connect to the internet, you'll need an account with an ISP.

What is an ISP?

An ISP (Internet Service Provider) is a company that collects a monthly or yearly fee in exchange for providing the subscriber with Internet access.

An ISP might provide dial-up service, cable, DSL, or other types of Internet access. Some ISPs are local while others are national.

A national ISP will provide access throughout most of the nation, while a local ISP will only serve subscribers in a limited geographical region.

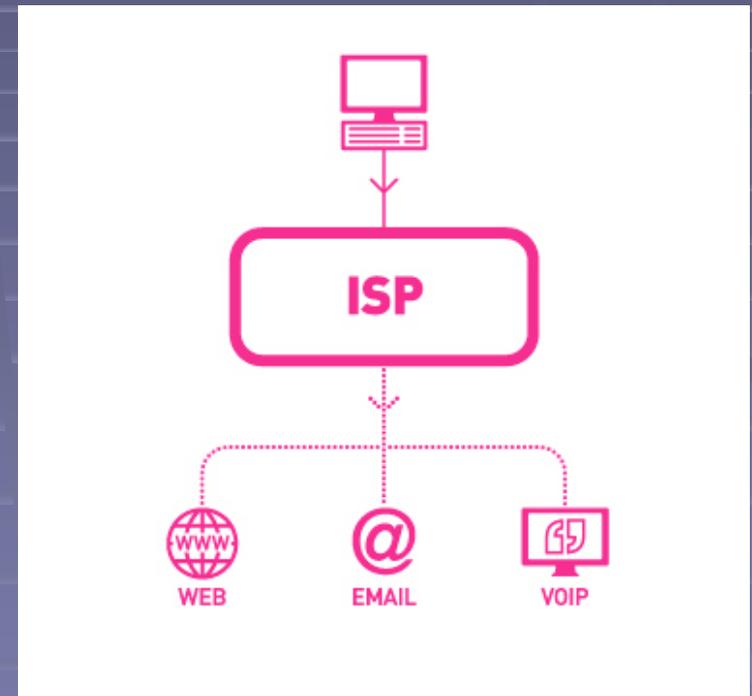
Connecting to the Internet

When looking for an ISP the initial consideration is the type of access desired.

Some ISPs only offer dial-up access which is the slowest type of connection.

If you want cable service, you'll be checking with your local cable TV provider to see if cable access is offered.

For DSL service, you may have multiple choices - or it could be that DSL is not yet available in your area.



What is the Worldwide Web?

The Worldwide Web (www), commonly referred to as the “Web”, is a system of interlinked, hypertext documents accessed via the Internet.

With a web browser, a user views web pages that may contain text, images, videos, and other multimedia and navigates between them using hyperlinks.



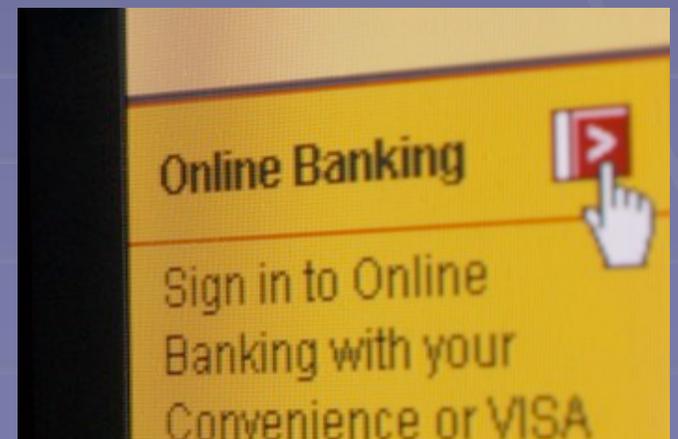
What is a hyperlink?

A hyperlink is a graphic or a piece of text in an Internet document that can connect readers to another webpage, or another portion of a document.

Web users will usually find at least one hyperlink on every webpage. The most simple form of these is called embedded text or an embedded link.

A hyperlink will show up as a single word or group of words that will usually be underlined, and frequently blue in color.

Clicking on the hyperlink may take one to another part of the page, open another Internet page or initiate a download.



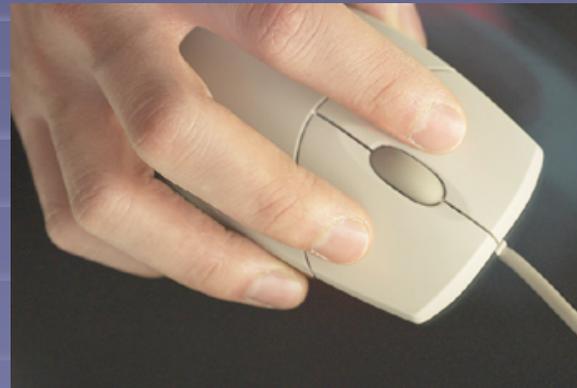
What is a hyperlink?

The HTML code for a hyperlink is relatively simple. It looks like this:

```
<a href =“http://www.google.com”>Google</a>
```

which will display like this: Google when viewed in the web browser.

Clicking on this hyperlink will send the web surfer to Google's homepage.



The web address http://www.google.com is also referred to as a URL (uniform resource locator), and is what you type in the browser locator window when navigating to a website.

What is a website?

Within the website, each screen of information is called a page.

Pages may contain a combination of text, graphic images, sound video.

A main feature is the "links" embedded within a page that can be clicked with a computer mouse and transport viewers to other pages.



What is a website?

Think of a website as a brochure. You would normally open a brochure at the front or the back and browse forwards or backwards a page at a time.

With a website, the user decides the order they wish to see the pages by clicking the links that interest them.

Hyperlinks are used to navigate the pages of a website.



What is a Domain Name?

If you're going to create a new website, the first thing you'll want is a name.

This probably means a domain name. A domain name is one of those names ending with ".com", ".net", ".tv" or any one of those other suffixes.

A name like this would give you something like `www.yourdomain.name` ("`.name`" is one of the available options!)



What is the Domain Name System?

The Domain Name System (DNS) helps users to find their way around the Internet.

Every computer on the Internet has a unique address – just like a telephone number – which is a rather complicated string of numbers.

The string of numbers is called an "IP address" (IP stands for "Internet Protocol").

216.239.51.99 is the IP address for a popular search engine... but who??

What is the Domain Name System?

(continued)

IP Addresses are hard to remember.

The DNS makes using the Internet easier by allowing a familiar string of letters (the "domain name") to be used instead of the arcane IP address.

So instead of typing 216.239.51.99, you can type www.google.com.

It is a "mnemonic" device that makes addresses easier to remember.

What does it mean to “register” a domain name?

The Internet domain name system (DNS) consists of a directory, organized hierarchically, of all the domain names and their corresponding computers registered to particular companies and persons using the Internet.

When you register a domain name, it will be associated with the computer on the Internet you designate during the period the registration is in effect.

From that computer, you can create a website which will be accessible to Internet users around the world.

What does it mean to “register” a domain name?

(continued)

A domain name must be unique. That explains why so many domain names are no longer available. Domain names must be renewed when the registration period nears expiration, otherwise the it will become available for registration by another person or company.

Domain names can be registered through many different companies (known as "registrars") that compete with one another.

How do I register a domain name?

The registrar you choose will ask you to provide various contact and technical information that makes up the registration.

The registrar will then keep records of the contact information and submit the technical information to a central directory known as the "registry."

This registry provides other computers on the Internet the information necessary to send you e-mail or to find your web site.

Where do I register a domain name?

You can register a name at any of dozens of Domain Name Registrars.

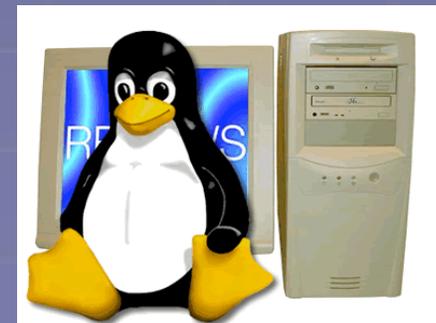
You can Google a list of companies that register domain names.

Web hosting companies will also register a new domain name (usually free of charge when you subscribe to web hosting on their servers).

What is web hosting?

If your web site is going to be seen by anyone other than you (and why else would you put so much effort into it?!) you'll need space on a web server to host it.

What kind of space (and what type of server i.e. Windows, Linux) is going to depend largely on that type of site you wish to build.



What is a web host provider?

A web host provider is a company that rents out web space and bandwidth to those who wish to publish a web site.

The web host gives its customer an account, which can be used to upload HTML documents, PHP scripts, graphics, and more.



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Promotion Package	Promotion Package	Content Package
Assistance in getting you started on the web	Let us move your Website from your current provider	BUY NOW

How do I choose a web host?

The process of choosing a web host can seem a daunting task. A quick search on google for web host yields over 6,000,000 results!

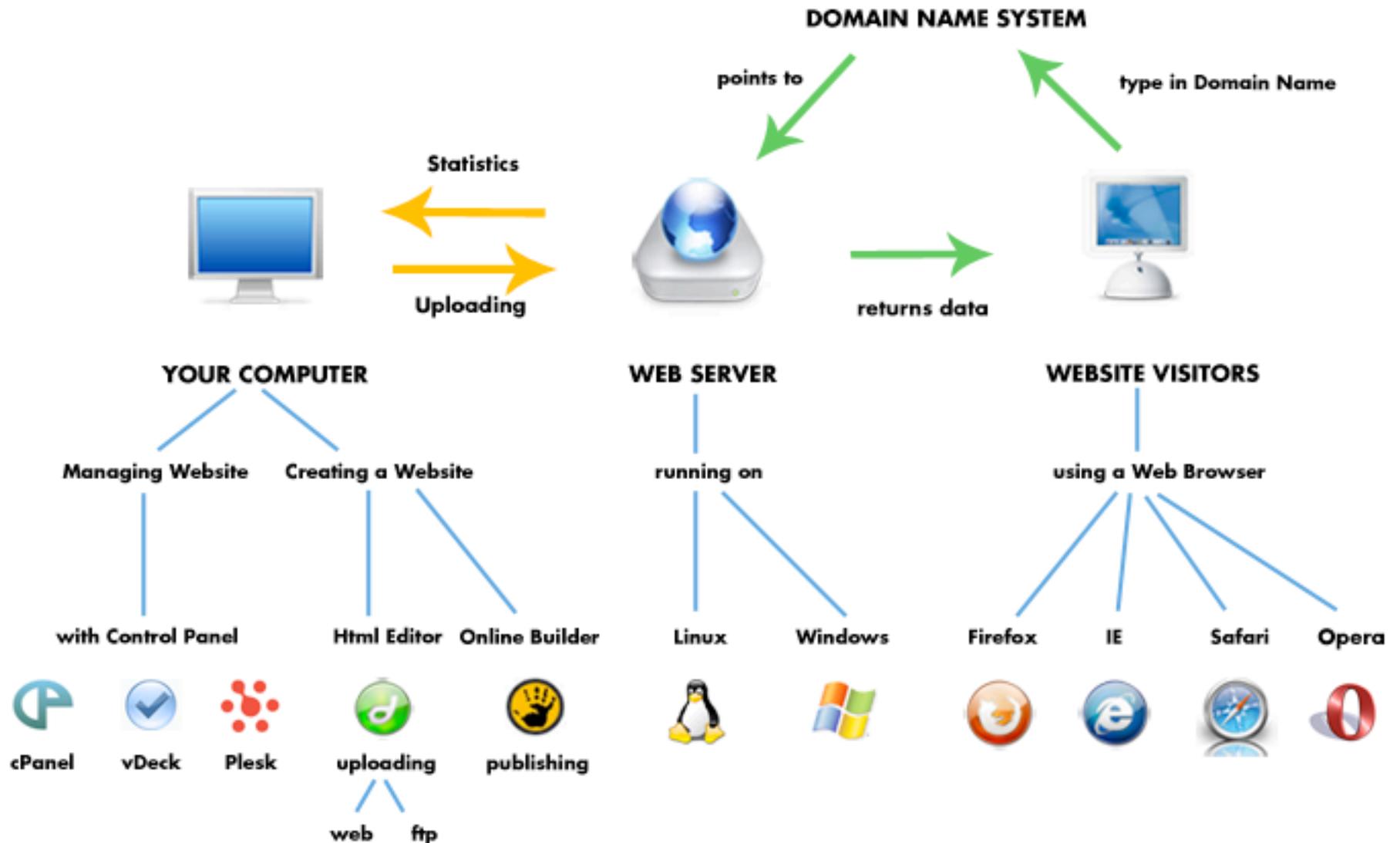
Who are all these companies?

No one really knows.

In the market of web hosting there is very little brand recognition, which means the consumer has to do a bit of research to ensure they arrive at a quality web hosting provider.

Basic Web Hosting Model

Model Elements: Your Computer, Web Server, Website Visitors



Getting your web site “up” on the web...

FTP (File Transfer Protocol) is the simplest and most secure way to exchange files over the Internet. Whether you know it or not, you most likely use FTP all the time.

FTP is the method used for uploading and downloading files to and from the server where a site is hosted by the chosen provider.

The ability to transfer files back-and-forth makes FTP essential for anyone creating a Web page, amateurs and professionals alike.

How does FTP work?

When downloading a file from the Internet you're actually transferring the file to your computer from another computer over the Internet.

This is why the T (transfer) is in FTP.

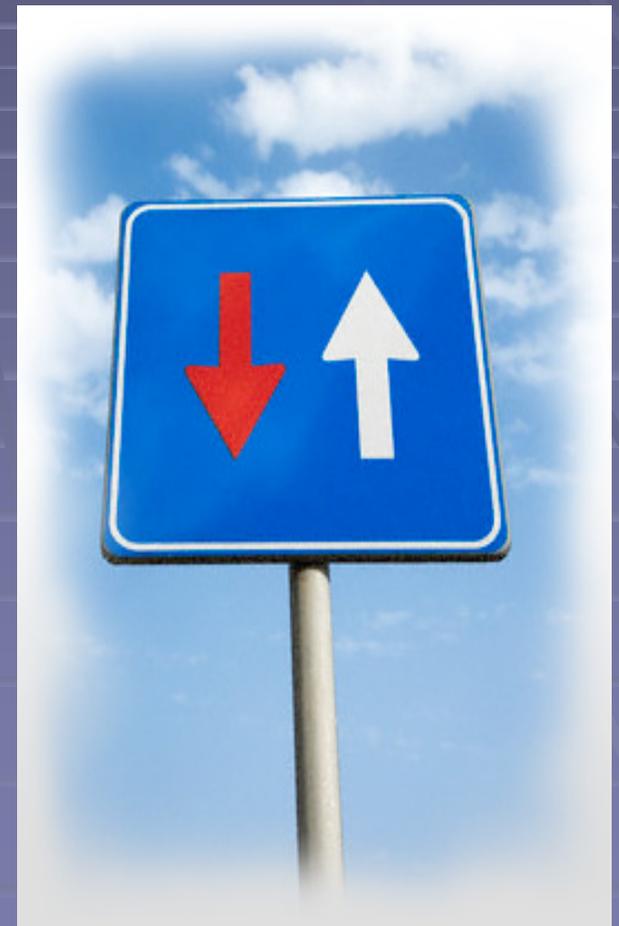
You may not know where the computer is that the file is coming from but you most likely know it's URL or Internet address.

FTP: the “server” ...

Specifically, FTP is a commonly used protocol for exchanging files over any network that supports the TCP/IP protocol (such as the Internet or an intranet).

There are two computers involved in an FTP transfer: a server and a client.

The FTP server (the web host’s server), running FTP server software, listens on the network for connection requests from other computers.



FTP: the “client” ...

The client computer, running FTP client software, initiates a connection to the server.

Once connected, the client can do a number of file manipulation operations such as uploading files to the server, download files from the server, rename or delete files on the server and so on.

FTP further explained...

Virtually every computer platform supports the FTP protocol.

This allows any computer connected to a TCP/IP based network to manipulate files on another computer on that network regardless of which operating systems are involved (if the computers permit FTP access).

There are many existing FTP client and server programs.

FTP servers can be set up anywhere between game servers, voice servers, internet hosts, and other physical servers.

Popular FTP client software:

Windows:

Cute FTP

WS-FTP

SmartFTP

Mac:

Fetch

Cyberduck

Browser based FTP:

FireFTP plugin for Firefox

WS_FTP interface:

