The Difference Between the Internet and the World Wide Web

Many people use the terms *Internet* and *World Wide Web* (a.k.a. *the Web*) interchangeably, but in fact the two terms are not synonymous. The Internet and the Web are two separate but related things.

The *Internet* is a massive network of networks, a networking infrastructure. It connects millions of computers together globally, forming a network in which any computer can communicate with any other computer as long as they are both connected to the Internet. Information that travels over the Internet does so via a variety of languages known as protocols.

The *World Wide Web*, or simply *Web*, is a way of accessing information over the medium of the Internet. It is an information-sharing model that is built on top of the Internet. The Web uses the HTTP protocol, only one of the languages spoken over the Internet, to transmit data. Web services, which use HTTP to allow applications to communicate in order to exchange business logic, use the Web to share information. The Web also utilizes browsers, such as Internet Explorer or Netscape, to access Web documents called Web pages that are linked to each other via hyperlinks. Web documents also contain graphics, sounds, text and video.

The Web is just one of the ways that information can be disseminated over the Internet. The Internet, not the Web, is also used for e-mail, which relies on SMTP, Usenet news groups, instant messaging and FTP. So the Web is just a portion of the Internet, albeit a large portion, but the two terms are not synonymous and should not be confused.

Hardware and software needed to get onto the web:

- Modem
- Phone line (depending on connection)
- Dial-up software
- Browser, to see web-pages

Brief descriptions:

- HTML, short for 'hypertext mark-up language'. A common protocol that all web browsers can read from to display a webpage.
- ISP, short for 'internet service provider'. To whom you receive a dial-up number, user name and password to connect to the Internet.
- FTP, short for 'file transfer protocol'. You can use an FTP client to upload files onto a server to be used on a website. FTP servers are also made available for software downloads.
- Browser, a browser is the software that you use to connect to websites. By typing in the address that you want to go to, for example, http://www.google.com it will convert that address

into a IP address and connect through port 81 and receive the date from the server as a html document (depending on what language the site has been programmed in)

- URL, short for 'Uniform Resource Locator'. This is the initial address that you type into your browser before it turns it into an IP address. Your URL needs to be told what type of server it is connecting to – for example to connect to a normal website you would usually find 'http://' before the address, but to connect to a FTP server you would find 'ftp://' before the wrest of the URL. The next part of the URL is the domain, this is the customizable part depending on what you register, for example it is the 'google' part in 'http://www.google.com'. After the domain is the Top Level Domain (TLD) which would be the '.com' part of 'http://www.google.com'.
- HTTP, short for 'HyperText Transfer Protocol'. This simply means your browser is looking for a Hyper Text document. Hyper Text is the basic coding used to construct web pages (otherwise known as HTML "hyper text markup language). Most browsers support cross-format surfing.

Possible reasons there are for a slow connection.

A slow connection could be more a number of different reasons, such as:

- If your phone company switching station has problems then you will obviously have speed and connection problems.
- If the wires coming into your house are old, they can cause problems and slower connection speeds.
- It depends on whether your phone lines are analog or digital.
- Is the switching station you're using, analog or digital ?
- If the phone lines coming into your house are strictly analog phone lines, your transmission speed is limited.
- Humidity can cause a loss of signal.
- Noise or inherent static on the phone line is the worst.
- Bad terminal connections will lose signal strength.
- The number of load coils in the phone line between your house and the switching station.
- If within your home the phone lines are run from one phone jack to the next phone jack to the next etc. your speed can be reduced due to all the connections and phones that are attached.
- Answering machines can interfere with transmission rates.
- If you are not using the correct protocol (TCP/IP) your transmission will be affected.
- If your modem is not configured correctly or it's not using the correct driver, a loss in performance will occur.

Information contained in a domain name:

Domain names are actually attached to a DNS (Domain Naming System) server, which is used to translate numeric addresses (known as IP, or Internet Protocol, addresses) into words. Each site you visit on the net has a numeric IP address behind its name, which represents the site's real address on the Internet.

Every domain name must be attached to a DNS server, which is the responsibility of the domain's owner (most registrars and Web hosts will handle this issue for you). There is no one central registry for DNS information; when a user enters a domain name in to their Web browser, it is up to that URL's DNS to handle the request. The DNS server then provides the browser with the correct IP, if it exists; otherwise, it returns an error message or redirects the user elsewhere.

After an IP has been determined, the user can interact with the Web server to access specific pages.

Latest computer virus: 'Blaster worm'

W32.Blaster.Worm is a worm that exploits the DCOM RPC vulnerability using TCP port 135. The worm targets only Windows 2000 and Windows XP machines. While Windows NT and Windows 2003 Server machines are vulnerable to the aforementioned exploit (if not properly patched), the worm is not coded to replicate to those systems. This worm attempts to download the msblast.exe file to the %WinDir%\system32 directory and then execute it. W32.Blaster.Worm does not have a mass-mailing functionality.

Different parts of an URL:

List 5 advantages and 5 disadvantages of using the internet:

Describe the ways viruses can be transmitted over the Internet:

What is a virus?

What is wrong with, HTTP://WWW.WEBADDRESS.COM