



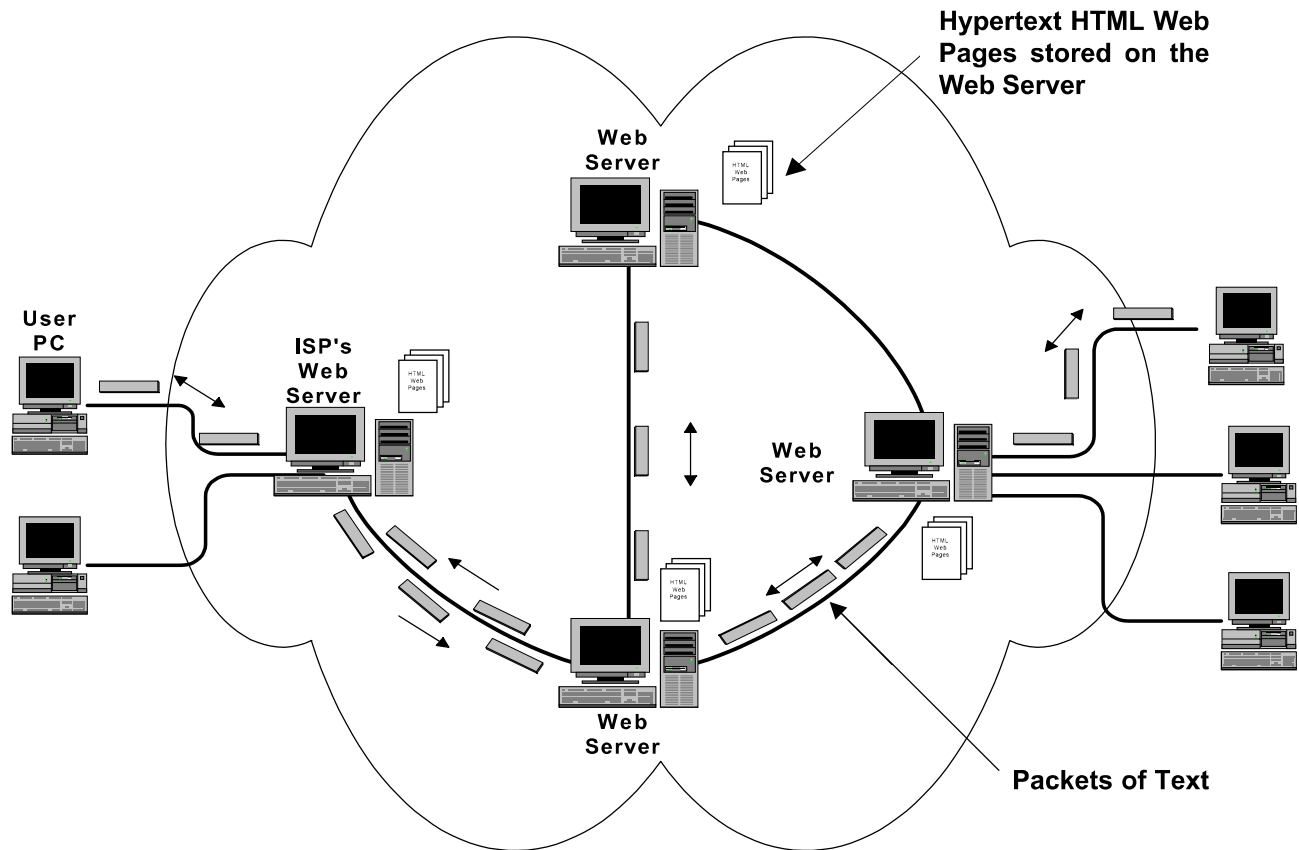
In more recent years the Internet and the browsers that access the Internet have seen the integration of some sophisticated capability, including:

- Electronic Mail (E-Mail)
- Online Chat
- News Groups
- Search Engines
- Voice and Video Conferencing
- Sound and Video Streaming

Much of what will be covered here will be based around these capabilities.

How the Internet Works

The Internet and WWW operate on the basis of packets of data (in text form) being transmitted from one internet server (a special PC set up for the task) to another. **Web Servers** are particular internet servers that deliver packets of **HTML** formatted data.

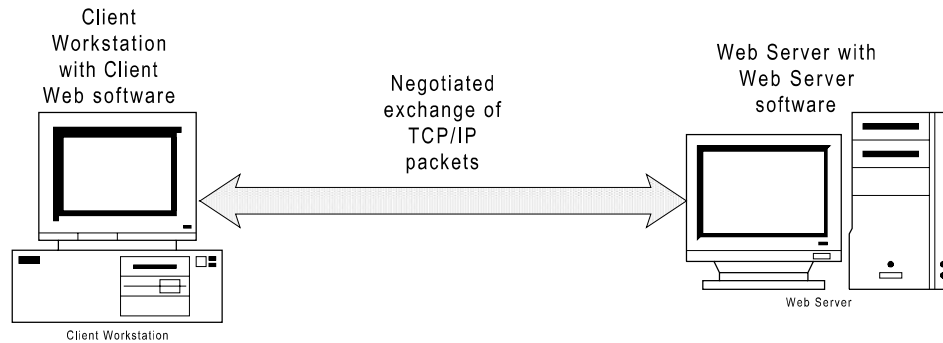


They negotiate the transfer of packets of data according to a complex set of rules described as the **TCP/IP protocols**. The rules describe the structure of the packets and the procedures by which the software on the machines communicate with each other.



Web Software Applications

Typically the software operates on a client-server basis—one machine receives the text data packets while the other sends them. Much of the detailed operation of the client-server process is taken care of by **Web Server software** residing on the web server and **Client Web software** installed on a user's workstation.




There are many web software applications, each with their own protocols rules. These include:

<u>Application</u>	<u>Protocol</u>	<u>Purpose</u>
Web browsing	http	To quickly and easily send and receive linked hypertext documents (i.e. WWW documents).
Sending files	ftp	To quickly transfer files from one ftp site to another.
Connecting to remote site	telnet	Connect and use a remote site.
Electronic Mail	SMTP	Send E-Mail messages
Chat	IRC	Run online chat sessions

In a web environment these applications can run and operate at the same time. In fact, many web software packages have been built to make use of these web protocols, some using only one protocol (e.g. WS-FTP) while others, such as the web browsers, Internet Explorer and Netscape use multiple protocols.

Connecting to the Internet depends mainly on where you are connecting from—from home or a remote site through to an **Internet Service Provider** or from a workstation on a network connected via a gateway straight through to the Internet.



TIPS!

ISPs

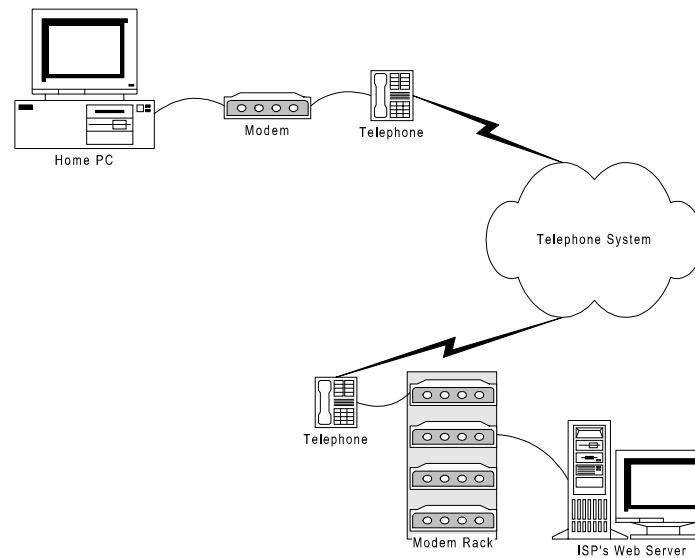
An **ISP** or **Internet Service Provider** is an organisation that has established specialised equipment and telephone lines to provide a web server capability for dial-in users. ISPs charge the subscriber for usage of their services. The rates depend on the type of service provided—usually on a time basis or a download size basis. A well-known ISP service in Australia is provided by Telstra's Big Pond at:

<http://www.bigpond.com>

Connecting to the Internet

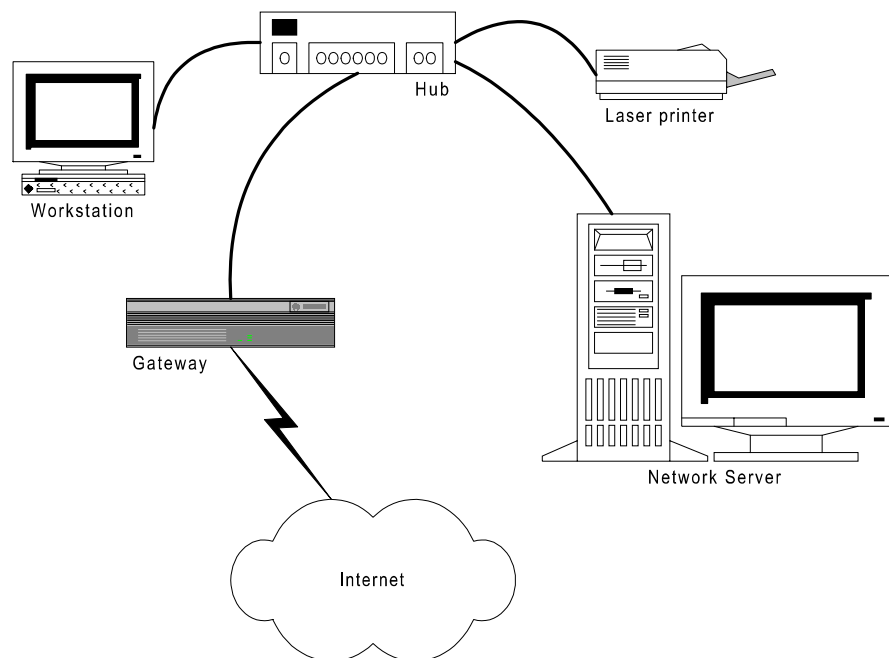


Connecting to the Internet from a Remote Site



This method of connecting to the Internet is also known as a **dial-up connection**. In the early days of the Internet dial-up connecting a lot of technical knowledge was required. Fortunately this process is much simpler now.

Connecting to the Internet from a Network



This method of connecting to the Internet is also known as a **network connection**. It requires some knowledge about the Internet settings used by your organisation and is best left for the IT support staff or the network administrator.