

Internet Technologies

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The building blocks of the Internet are in the technologies that made the Web, mainly, protocols, browsers, servers, and the software systems that ran to enable advanced elements like Java, ActiveX and dynamic scripts (Treese, Stewart, 2003).

Internet protocols are the communication strings that allow information across the internet to be transmitted. The TCP/IP protocol has been adapted as the protocol for the Internet architecture; where the IP address is the number that is used to uniquely identify each computer on the global network. Its application layer protocol HTTP enables transmission of HTML pages the main format for documents on the Internet. With HTTP comes a set of protocols that allow for electronic messaging, other file types transfer, network connectivity, and mapping of links through the Internet. These services are covered by IMAP, FTP, NNTP, and Gopher respectively (HTTP Related Protocols) .

On the Internet computers that store information in the form of HTML pages are known as web servers, which are basically main server machines that have software to enable accessing these pages by typing a uniform resource locator (URL) identifying the server machine IP address. On the other hand, Internet users have normal PC machines that get connected to the Internet and type URL's on a browser software that displays the web pages (Jeffrey Brown and others, Prosoft) .

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On the software side, the technologies used to display web pages is incorporating more dynamic interactive content through programming languages such as Java and Visual basic. ActiveX components, Java Applets, Scripts, and flash are adding plug-in technologies to browsers to extend the pages from normal text-based to interactive and live animation (Treese, Stewart, 2003)³. Other back bone technologies like web services, server side scripting languages, and common gateway interface programming, support the Web by allowing distributed applications to run, electronic commerce to function, and web forms collecting information from visitors to integrate and store data into databases.

The services offered by the Web are web pages, file upload and download, electronic mail, video streaming, and newsletter feed. The main line that separates and joins the Web and the Internet is the connectivity versus the content. The routers, networks, computers, servers, and switches represent the Internet as the network that is providing the base upon which the Web was build. The Web is the information and data shared through hyper text markup language and all the other languages that are adapted to create web pages (Jon Jackson, 2006) . The technologies that display information including dynamic HTML, XML and CSS are enhancements managed by w3.org as the mother organization for all Web standards.

Further more, associations such as ICANN ([ICANN.org](http://www.icann.org)) and IETF ([IETF.org](http://www.ietf.org)) govern and control the protocols and the connectivity standards of the network and its devices, thus controlling the Internet. Although the advancements of both has gone side by side, the expansion in usage and the increase of web sites as per the latest statistics from Netcraft.com are a direct result of the technologies that enriched the experience for the users and the surfers who seek the Web as a source of information and a tool for business.

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