WWW Lifecycle

The Internet is a global network of billions of computers and other electronic devices that uses the Internet protocol suite (TCP/IP) to communicate between networks and devices. It is a network of networks that consists of private, public, academic, business, and government networks of local to global scope, linked by a broad array of electronic, wireless, and optical networking technologies. The Internet carries a vast range of information resources and services, such as the inter-linked hypertext documents and applications of the World Wide Web (WWW), electronic mail, telephony, and file sharing.

The Internet is an open network: any computing device can join if they follow the rules. In networking, the rules are known as protocols and they define how each device must communicate with each other. The Internet is powered by many layers of protocols.

The Internet is the world's largest computer network.

To create a global network of computing devices, we need:

Wires & wireless: Physical connections between devices, plus protocols for converting electromagnetic signals into binary data.

IP: A protocol that uniquely identify devices using IP addresses and provides a routing strategy to send data to a destination IP address.

TCP/UDP: Protocols that can transport packets of data from one device to another and check for errors along the way.

TLS: A secure protocol for sending encrypted data so that attackers can't view private information.

HTTP & DNS: The protocols powering the World Wide Web, what the browser uses every time you load a webpage.

Most information on the Internet is on websites. Once connected to the Internet you can access the Internet using a web browsers application.

To navigate we need an IP address of the site. Because IP addresses are harder to remember, this was solved with the help of DNS servers. Thus we will enter the website address in the browser, then it will send the request to a DNS server. The DNS server will then convert the site name to an IP address. The DNS server will send the site's ip address back to the browser. Now that the browser has the IP address of the site, it will send a command, Http get, to the web server. The web server will send the requested data to the browser and the browser after receiving them will render html web pages.