

# Internet Overview

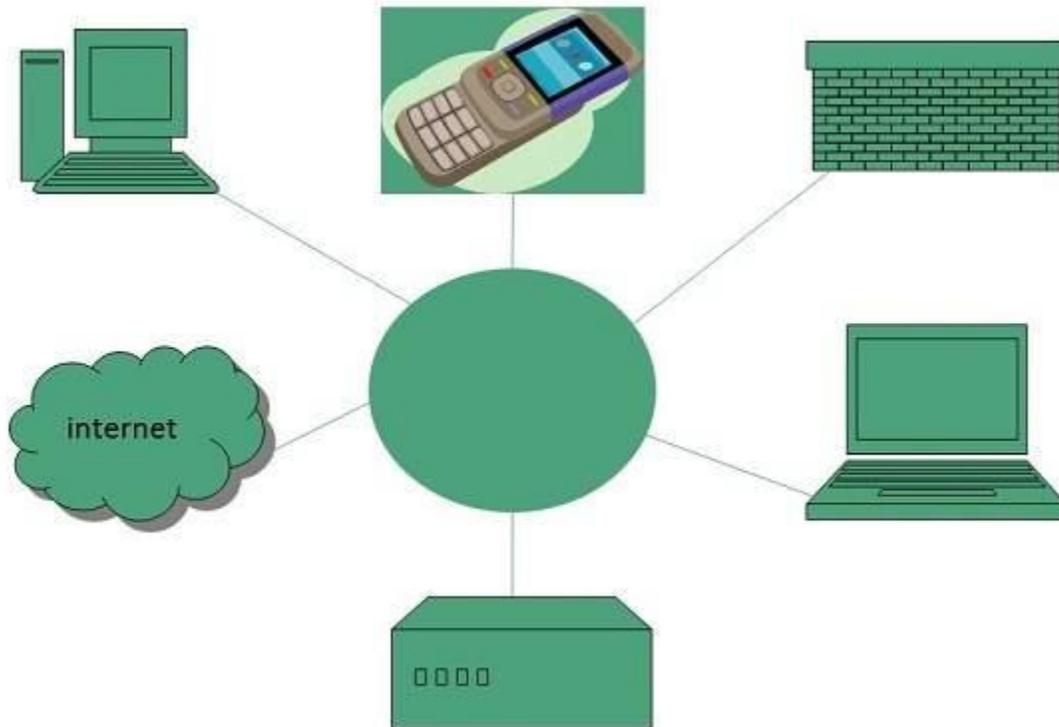
[https://www.tutorialspoint.com/internet\\_technologies/internet\\_overview.htm](https://www.tutorialspoint.com/internet_technologies/internet_overview.htm)

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## Internet

Internet is defined as an Information super Highway, to access information over the web. However, It can be defined in many ways as follows:

- Internet is a world-wide global system of interconnected computer networks.
- Internet uses the standard Internet Protocol TCP/IP.
- Every computer in internet is identified by a unique IP address.
- IP Address is a unique set of numbers such as 110.22.33.114 which identifies a computer location.
- A special computer DNS DomainNameServer is used to give name to the IP Address so that user can locate a computer by a name.
- For example, a DNS server will resolve a name **http://www.tutorialspoint.com** to a particular IP address to uniquely identify the computer on which this website is hosted.
- Internet is accessible to every user all over the world.



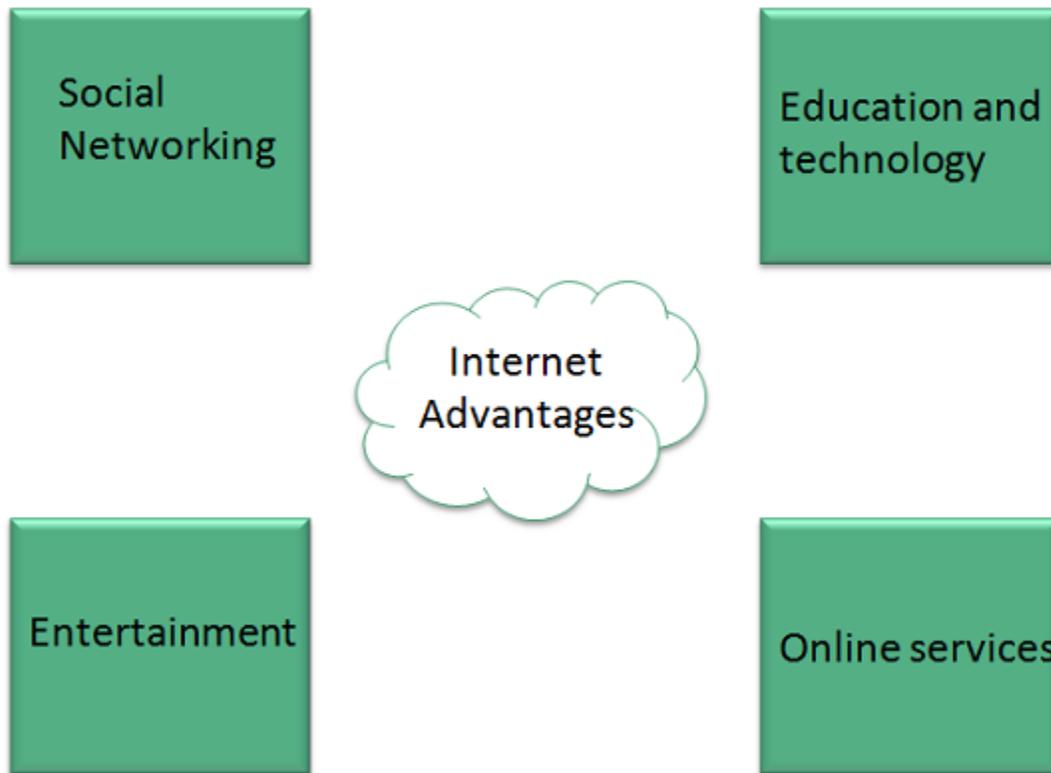
## Evolution

The concept of Internet was originated in 1969 and has undergone several technological & Infrastructural changes as discussed below:

- The origin of Internet devised from the concept of **Advanced Research Project Agency Network** ARPANET/ARPANET.
- **ARPANET** was developed by United States Department of Defense.
- Basic purpose of ARPANET was to provide communication among the various bodies of government.
- Initially, there were only four nodes, formally called **Hosts**.
- In 1972, the **ARPANET** spread over the globe with 23 nodes located at different countries and thus became known as **Internet**.
- By the time, with invention of new technologies such as TCP/IP protocols, DNS, WWW, browsers, scripting languages etc., Internet provided a medium to publish and access information over the web.

## Advantages

Internet covers almost every aspect of life, one can think of. Here, we will discuss some of the advantages of Internet:

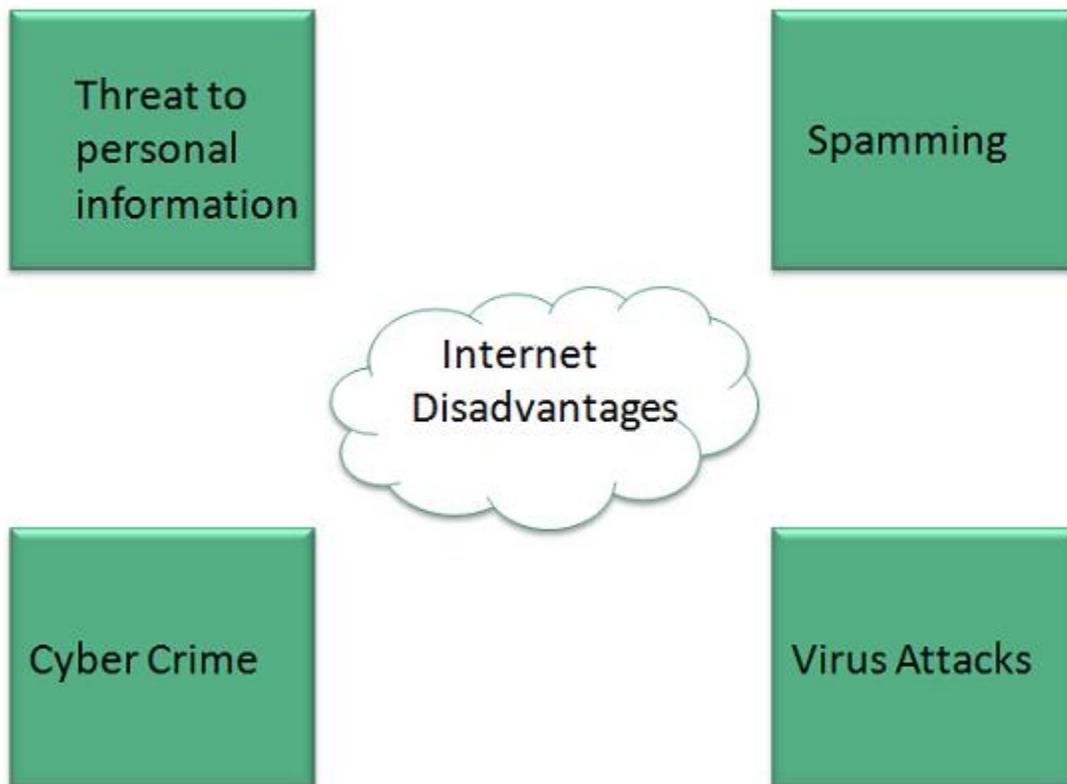


- Internet allows us to communicate with the people sitting at remote locations. There are various apps available on the web that use Internet as a medium for communication. One can find various social networking sites such as:
  - Facebook
  - Twitter
  - Yahoo
  - Google+
  - Flickr
  - Orkut
- One can surf for any kind of information over the internet. Information regarding various topics such as Technology, Health & Science, Social Studies, Geographical Information, Information Technology, Products etc can be surfed with help of a search engine.
- Apart from communication and source of information, internet also serves a medium for entertainment. Following are the various modes for entertainment over internet.
  - Online Television
  - Online Games
  - Songs

- Videos
- Social Networking Apps
- Internet allows us to use many services like:
  - Internet Banking
  - Matrimonial Services
  - Online Shopping
  - Online Ticket Booking
  - Online Bill Payment
  - Data Sharing
  - E-mail
- Internet provides concept of **electronic commerce**, that allows the business deals to be conducted on electronic systems

## Disadvantages

However, Internet has proved to be a powerful source of information in almost every field, yet there exists many disadvantages discussed below:



- There are always chances to lose personal information such as name, address, credit card number. Therefore, one should be very careful while

sharing such information. One should use credit cards only through authenticated sites.

- Another disadvantage is the **Spamming**. Spamming corresponds to the unwanted e-mails in bulk. These e-mails serve no purpose and lead to obstruction of entire system.
- **Virus** can easily be spread to the computers connected to internet. Such virus attacks may cause your system to crash or your important data may get deleted.
- Also a biggest threat on internet is pornography. There are many pornographic sites that can be found, letting your children to use internet which indirectly affects the children healthy mental life.
- There are various websites that do not provide the authenticated information. This leads to misconception among many people.

# INTERNET CONNECTIVITY

[http://www.tutorialspoint.com/internet\\_technologies/internet\\_connectivity.htm](http://www.tutorialspoint.com/internet_technologies/internet_connectivity.htm)

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Here in this tutorial, we will discuss how to connect to internet i.e. internet service providers, software and hardware requirements, configuring internet connection etc.

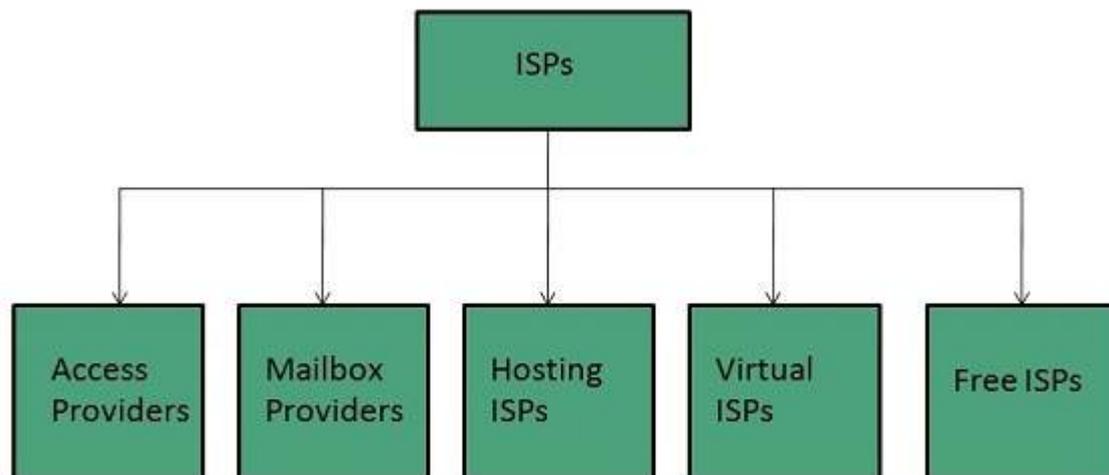
## Internet Service Providers *ISP*

**Internet Service Provider *ISP*** is a company offering access to internet. They offer various services:

- Internet Access
- Domain name registration
- Dial-up access
- Leased line access

## ISP Types

ISPs can broadly be classified into six categories as shown in the following diagram:



### Access providers

They provide access to internet through telephone lines, cable wi-fi or fiber optics.

### Mailbox Provider

Such providers offer mailbox hosting services.

### Hosting ISPs

Hosting ISPs offers e-mail, and other web hosting services such as virtual machines, clouds etc.

### Virtual ISPs

Such ISPs offer internet access via other ISP services.

### Free ISPs

Free ISPs do not charge for internet services.

## Connection Types

There exist several ways to connect to the internet. Following are these connection types available:

1. Dial-up Connection
2. ISDN
3. DSL
4. Cable TV Internet connections
5. Satellite Internet connections
6. Wireless Internet Connections

## Dial-up Connection

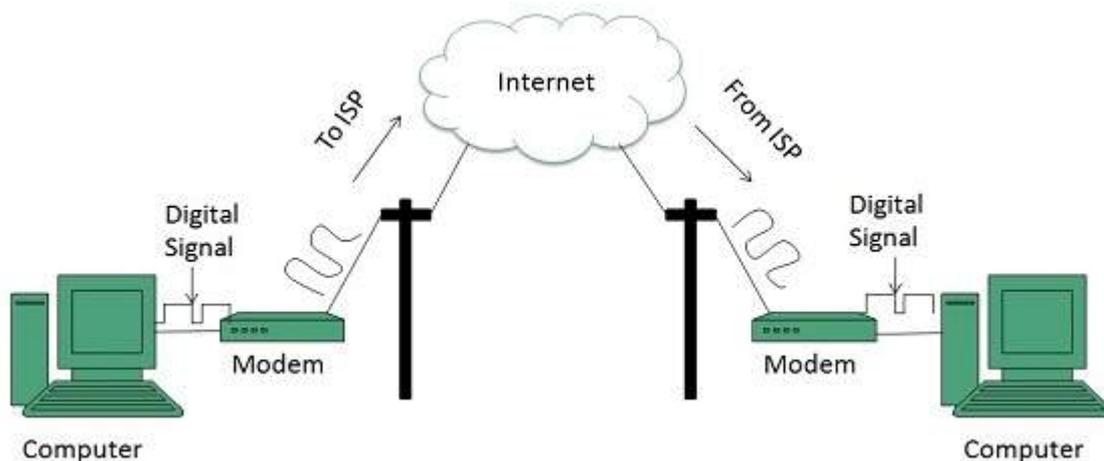
**Dial-up** connection uses telephone line to connect PC to the internet. It requires a modem to setup dial-up connection. This modem works as an interface between PC and the telephone line.

There is also a communication program that instructs the modem to make a call to specific number provided by an ISP.

Dial-up connection uses either of the following protocols:

1. Serial Line Internet Protocol *SLIP*
2. Point to Point Protocol *PPP*

The following diagram shows the accessing internet using modem:



## ISDN

**ISDN** is acronym of **Integrated Services Digital Network**. It establishes the connection using the phone lines which carry digital signals instead of analog signals.

There are two techniques to deliver ISDN services:

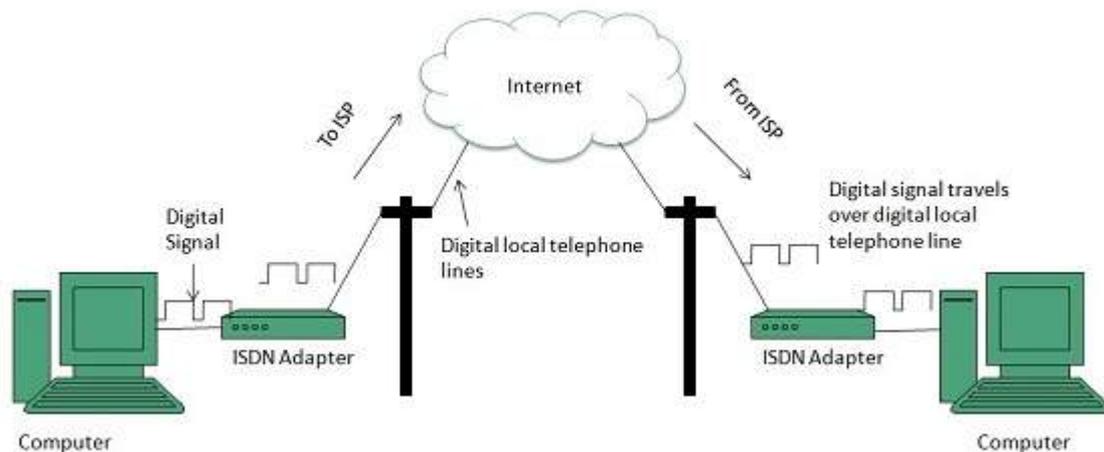
1. Basic Rate Interface *BRI*
2. Primary Rate Interface *PRI*

### Key points:

- The BRI ISDN consists of three distinct channels on a single ISDN line: t1o 64kbps B *Bearer* channel and one 16kbps D *DeltaorData* channels.

- The PRI ISDN consists of 23 B channels and one D channels with both have operating capacity of 64kbps individually making a total transmission rate of 1.54Mbps.

The following diagram shows accessing internet using ISDN connection:



## DSL

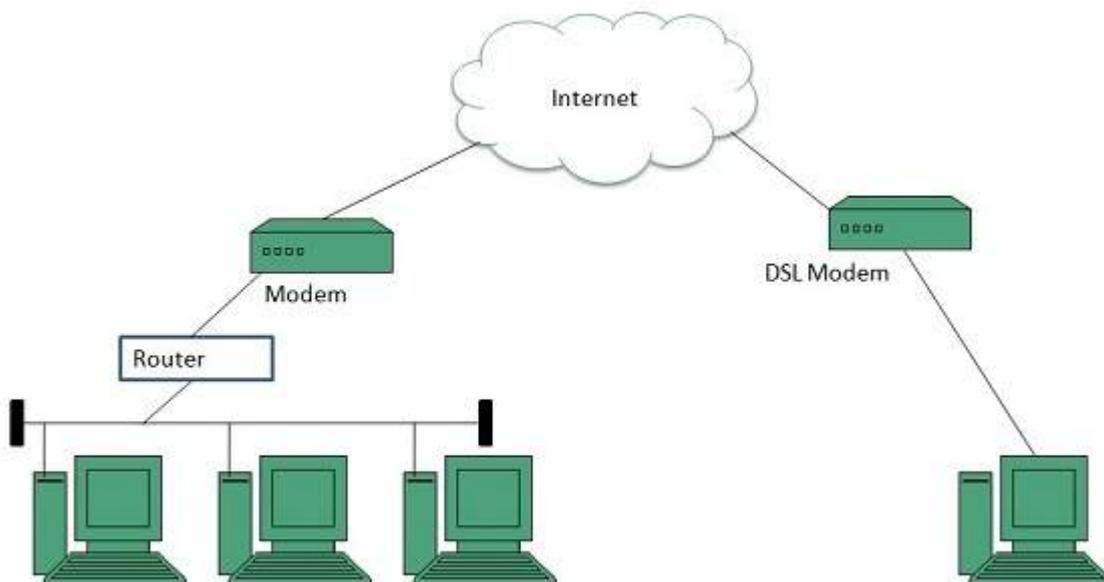
**DSL** is acronym of **Digital Subscriber Line**. It is a form of broadband connection as it provides connection over ordinary telephone lines.

Following are the several versions of DSL technique available today:

1. Asymmetric DSL *ADSL*
2. Symmetric DSL *SDSL*
3. High bit-rate DSL *HDSL*
4. Rate adaptive DSL *RDSL*
5. Very high bit-rate DSL *VDSL*
6. ISDN DSL *IDSL*

All of the above mentioned technologies differ in their upload and download speed, bit transfer rate and level of service.

The following diagram shows that how we can connect to internet using DSL technology:



Internet Access Using DSL Modem

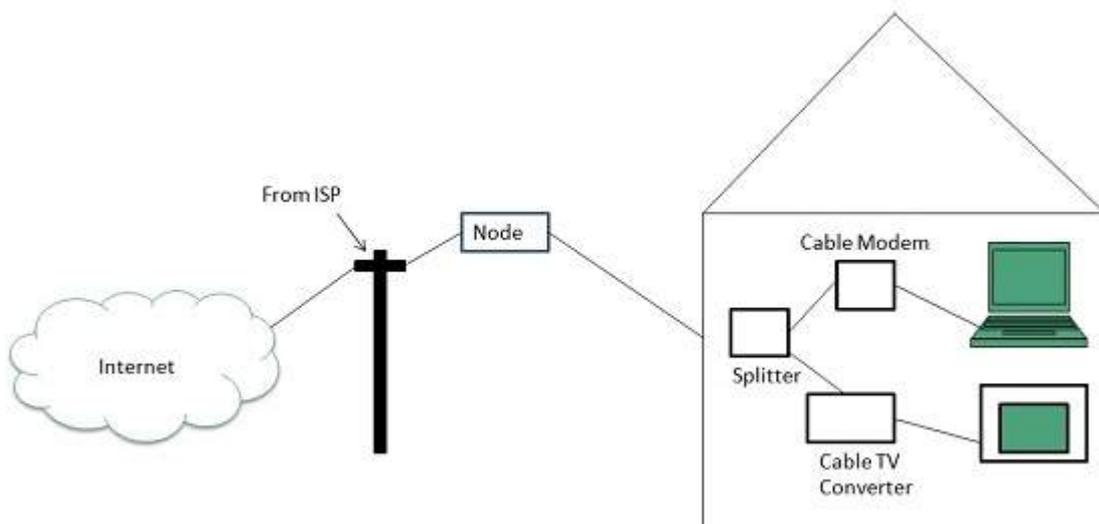
## Cable TV Internet Connection

Cable TV Internet connection is provided through Cable TV lines. It uses coaxial cable which is capable of transferring data at much higher speed than common telephone line.

### Key Points:

- A cable modem is used to access this service, provided by the cable operator.
- The Cable modem comprises of two connections: one for internet service and other for Cable TV signals.
- Since Cable TV internet connections share a set amount of bandwidth with a group of customers, therefore, data transfer rate also depends on number of customers using the internet at the same time.

The following diagram shows that how internet is accessed using Cable TV connection:



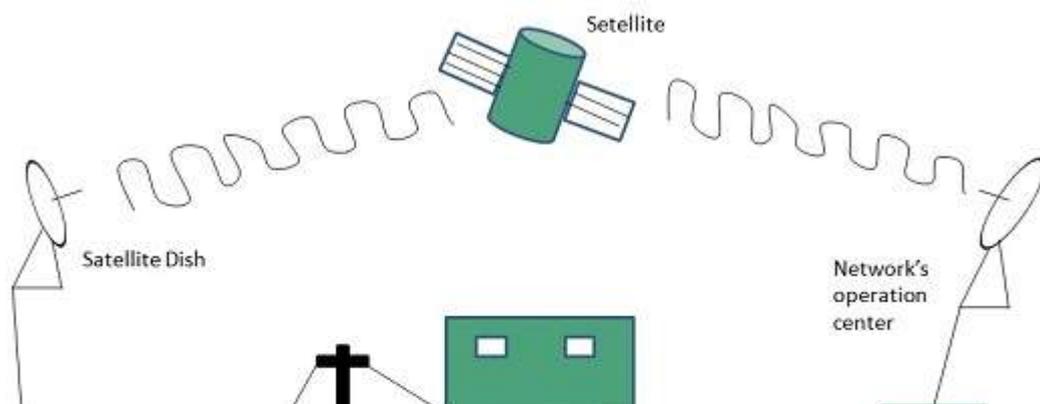
## Satellite Internet Connection

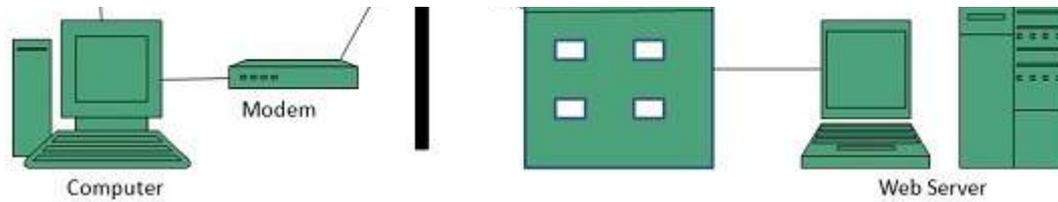
Satellite Internet connection offers high speed connection to the internet. There are two types of satellite internet connection: one way connection or two way connection.

In one way connection, we can only download data but if we want to upload, we need a dialup access through ISP over telephone line.

In two way connection, we can download and upload the data by the satellite. It does not require any dialup connection.

The following diagram shows how internet is accessed using satellite internet connection:





## Wireless Internet Connection

Wireless Internet Connection makes use of radio frequency bands to connect to the internet and offers a very high speed. The wireless internet connection can be obtained by either WiFi or Bluetooth.

### Key Points:

- Wi Fi wireless technology is based on IEEE 802.11 standards which allow the electronic device to connect to the internet.
- Bluetooth wireless technology makes use of short-wavelength radio waves and helps to create personal area network *PAN*.

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# INTERNET DOMAIN NAME SYSTEM

[http://www.tutorialspoint.com/internet\\_technologies/internet\\_domain\\_name\\_system.htm](http://www.tutorialspoint.com/internet_technologies/internet_domain_name_system.htm)

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## Overview

When **DNS** was not into existence, one had to download a **Host file** containing host names and their corresponding IP address. But with increase in number of hosts of internet, the size of host file also increased. This resulted in increased traffic on downloading this file. To solve this problem the DNS system was introduced.

**Domain Name System** helps to resolve the host name to an address. It uses a hierarchical naming scheme and distributed database of IP addresses and associated names

## IP Address

IP address is a unique logical address assigned to a machine over the network. An IP address exhibits the following properties:

- IP address is the unique address assigned to each host present on Internet.
- IP address is 32 bits *4bytes* long.
- IP address consists of two components: **network component** and **host component**.
- Each of the 4 bytes is represented by a number from 0 to 255, separated with dots. For example 137.170.4.124

*IP address is 32-bit number while on the other hand domain names are easy to remember names. For example, when we enter an email address we always enter a symbolic string such as [webmaster@tutorialspoint.com](mailto:webmaster@tutorialspoint.com).*

## Uniform Resource Locator *URL*

**Uniform Resource Locator *URL*** refers to a web address which uniquely identifies a document over the internet.

*This document can be a web page, image, audio, video or anything else present on the web.*

For example, **[www.tutorialspoint.com/internet\\_technology/index.html](http://www.tutorialspoint.com/internet_technology/index.html)** is an URL to the index.html which is stored on tutorialspoint web server under internet\_technology directory.

## URL Types

There are two forms of URL as listed below:

1. Absolute URL
2. Relative URL

## Absolute URL

Absolute URL is a complete address of a resource on the web. This completed address comprises of protocol used, server name, path name and file name.

For example [http:// www.tutorialspoint.com / internet\\_technology /index.htm](http://www.tutorialspoint.com/internet_technology/index.htm). where:

- **http** is the protocol.
- **tutorialspoint.com** is the server name.
- **index.htm** is the file name.

The protocol part tells the web browser how to handle the file. Similarly we have some other protocols also that can be used to create URL are:

- FTP
- https
- Gopher
- mailto
- news

## Relative URL

Relative URL is a partial address of a webpage. Unlike absolute URL, the protocol and server part are omitted from relative URL.

*Relative URLs are used for internal links i.e. to create links to file that are part of same website as the WebPages on which you are placing the link.*

For example, to link an image on tutorialspoint.com/internet\_technology/internet\_referemce\_models, we can use the relative URL which can take the form like **/internet\_technologies/internet-osi\_model.jpg**.

## Difference between Absolute and Relative URL

Absolute URL	Relative URL
Used to link web pages on different websites	Used to link web pages within the same website.
Difficult to manage.	Easy to Manage
Changes when the server name or directory name changes	Remains same even of we change the server name or directory name.
Take time to access	Comparatively faster to access.

## Domain Name System Architecture

The Domain name system comprises of **Domain Names, Domain Name Space, Name Server** that have been described below:

### Domain Names

Domain Name is a symbolic string associated with an IP address. There are several domain names available; some of them are generic such as **com, edu, gov, net** etc, while some country level domain names such as **au, in, za, us** etc.

The following table shows the **Generic** Top-Level Domain names:

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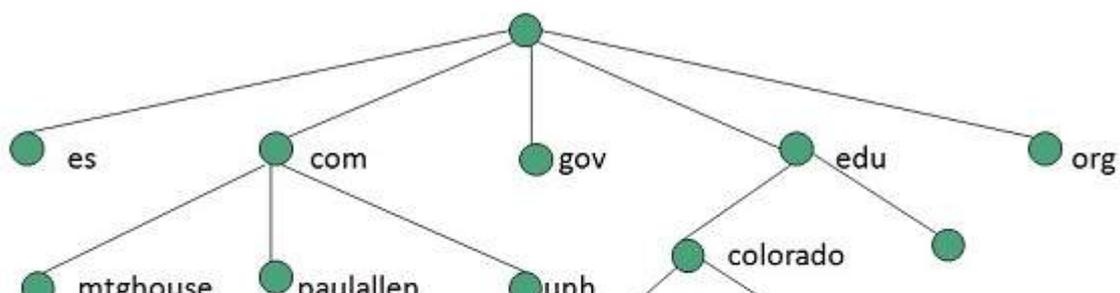
Domain Name	Meaning
Com	Commercial business
Edu	Education
Gov	U.S. government agency
Int	International entity
Mil	U.S. military
Net	Networking organization
Org	Non profit organization

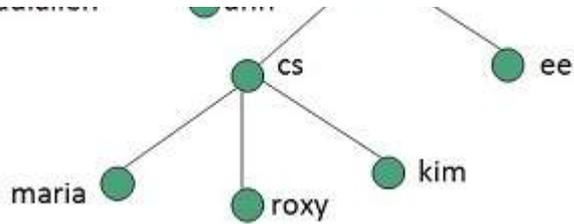
The following table shows the **Country top-level** domain names:

Domain Name	Meaning
au	Australia
in	India
cl	Chile
fr	France
us	United States
za	South Africa
uk	United Kingdom
jp	Japan
es	Spain
de	Germany
ca	Canada
ee	Estonia
hk	Hong Kong

## Domain Name Space

The domain name space refers a hierarchy in the internet naming structure. This hierarchy has multiple levels *from 0 to 127*, with a root at the top. The following diagram shows the domain name space hierarchy:





In the above diagram each subtree represents a domain. Each domain can be partitioned into sub domains and these can be further partitioned and so on.

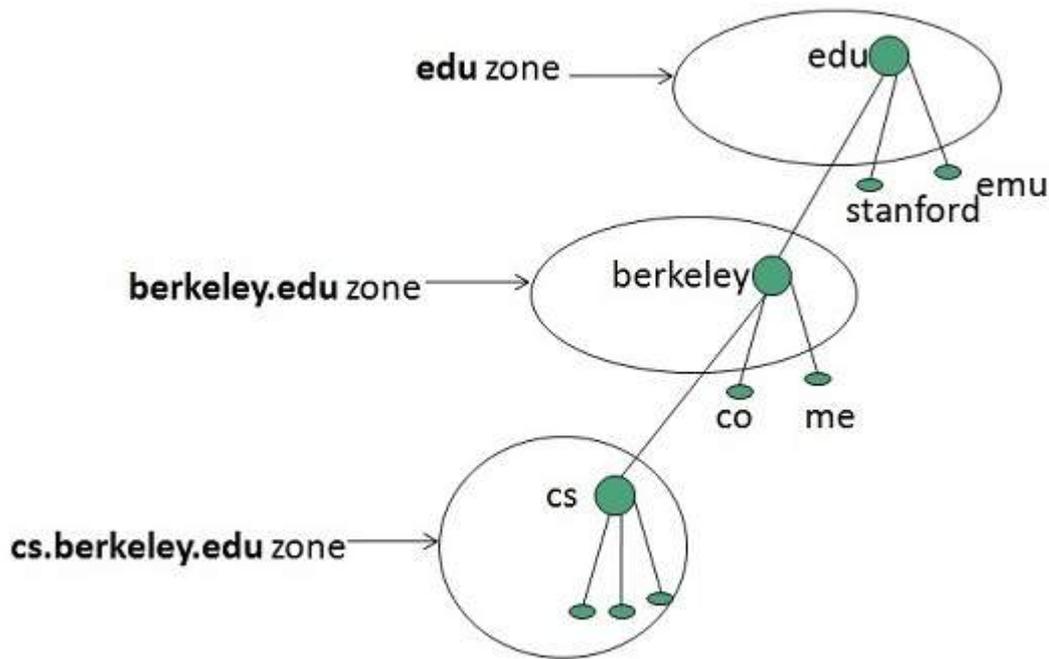
## Name Server

Name server contains the DNS database. This database comprises of various names and their corresponding IP addresses. Since it is not possible for a single server to maintain entire DNS database, therefore, the information is distributed among many DNS servers.

- *Hierarchy of server is same as hierarchy of names.*
- *The entire name space is divided into the zones*

## Zones

Zone is collection of nodes *subdomains* under the main domain. The server maintains a database called zone file for every zone.



*If the domain is not further divided into sub domains then domain and zone refers to the same thing.*

The information about the nodes in the sub domain is stored in the servers at the lower levels however; the original server keeps reference to these lower levels of servers.

## Types of Name Servers

Following are the three categories of Name Servers that manages the entire Domain Name

System:

1. Root Server
2. Primary Server
3. Secondary Server

### Root Server

Root Server is the top level server which consists of the entire DNS tree. It does not contain the information about domains but delegates the authority to the other server

### Primary Servers

Primary Server stores a file about its zone. It has authority to create, maintain, and update the zone file.

### Secondary Server

Secondary Server transfers complete information about a zone from another server which may be primary or secondary server. The secondary server does not have authority to create or update a zone file.

## DNS Working

DNS translates the domain name into IP address automatically. Following steps will take you through the steps included in domain resolution process:

- When we type **www.tutorialspoint.com** into the browser, it asks the local DNS Server for its IP address.

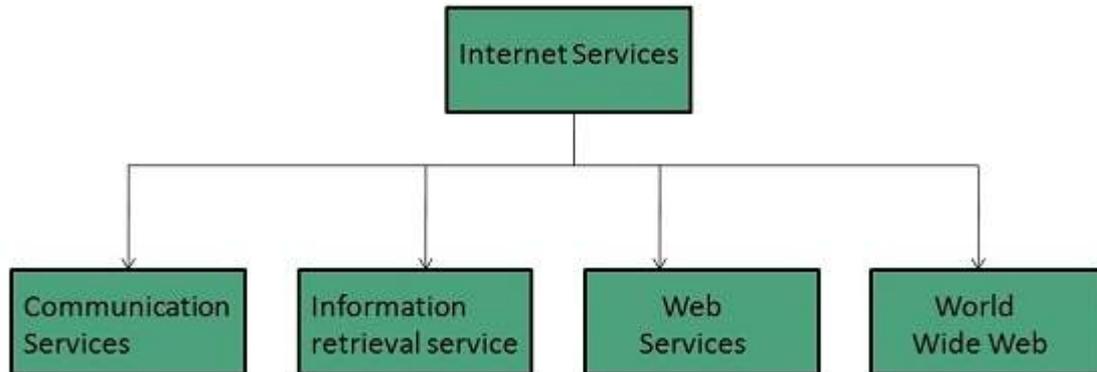
| *Here the local DNS is at ISP end.*

- When the local DNS does not find the IP address of requested domain name, it forwards the request to the root DNS server and again enquires about IP address of it.
- The root DNS server replies with delegation that **I do not know the IP address of www.tutorialspoint.com but know the IP address of DNS Server.**
- The local DNS server then asks the com DNS Server the same question.
- The **com** DNS Server replies the same that it does not know the IP address of www.tutorialspoint.com but knows the address of tutorialspoint.com.
- Then the local DNS asks the tutorialspoint.com DNS server the same question.
- Then tutorialspoint.com DNS server replies with IP address of www.tutorialspoint.com.
- Now, the local DNS sends the IP address of www.tutorialspoint.com to the computer that sends the request

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# INTERNET SERVICES

**Internet Services** allows us to access huge amount of information such as text, graphics, sound and software over the internet. Following diagram shows the four different categories of Internet Services.



## Communication Services

There are various Communication Services available that offer exchange of information with individuals or groups. The following table gives a brief introduction to these services:

S.N.	Service Description
1	<b>Electronic Mail</b> Used to send electronic message over the internet.
2	<b>Telnet</b> Used to log on to a remote computer that is attached to internet.
3	<b>Newsgroup</b> Offers a forum for people to discuss topics of common interests.
4	<b>Internet Relay Chat IRC</b> Allows the people from all over the world to communicate in real time.
5	<b>Mailing Lists</b> Used to organize group of internet users to share common information through e-mail.
6	<b>Internet Telephony VoIP</b> Allows the internet users to talk across internet to any PC equipped to receive the call.
7	<b>Instant Messaging</b> Offers real time chat between individuals and group of people. Eg. Yahoo messenger, MSN messenger.

## Information Retrieval Services

There exist several Information retrieval services offering easy access to information present on the internet. The following table gives a brief introduction to these services:

S.N.	Service Description
1	<b>File Transfer Protocol FTP</b> Enable the users to transfer files.

2	<b>Archie</b> It's updated database of public FTP sites and their content. It helps to search a file by its name.
3	<b>Gopher</b> Used to search, retrieve, and display documents on remote sites.
4	<b>Very Easy Rodent Oriented Netwide Index to Computer Achieved VERONICA</b> VERONICA is gopher based resource. It allows access to the information resource stored on gopher's servers.

## Web Services

Web services allow exchange of information between applications on the web. Using web services, applications can easily interact with each other.

| *The web services are offered using concept of **Utility Computing**.*

## World Wide Web WWW

WWW is also known as W3. It offers a way to access documents spread over the several servers over the internet. These documents may contain texts, graphics, audio, video, hyperlinks. The hyperlinks allow the users to navigate between the documents.

## Video Conferencing

Video conferencing or Video teleconferencing is a method of communicating by two-way video and audio transmission with help of telecommunication technologies.

### Modes of Video Conferencing

#### Point-to-Point

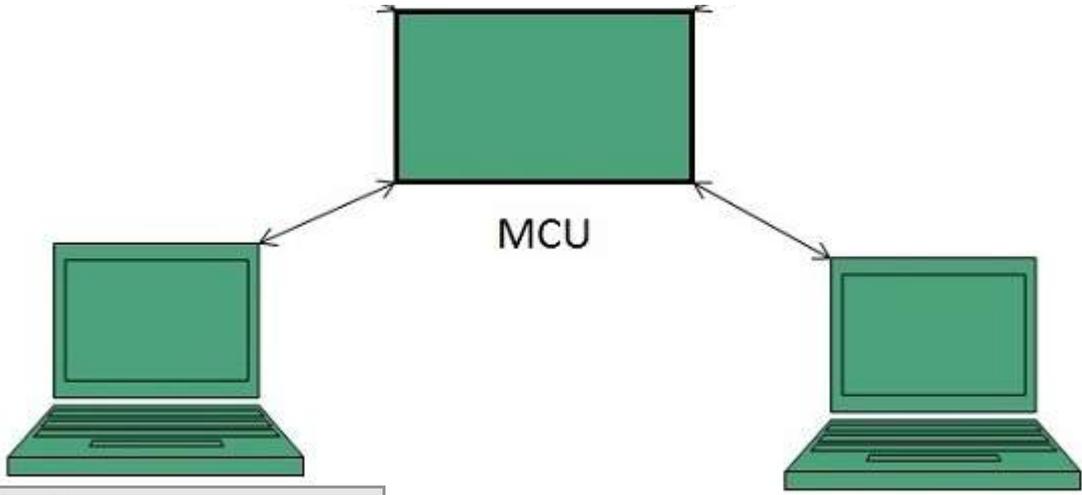
This mode of conferencing connects two locations only.



#### Multi-point

This mode of conferencing connects more than two locations through **Multi-point Control Unit MCU**.





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# WWW OVERVIEW

## Overview

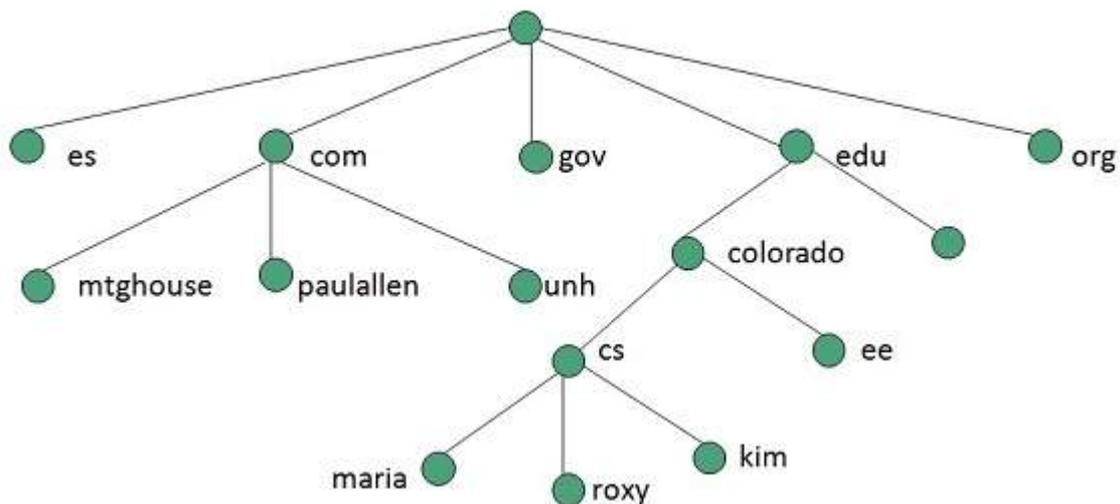
**WWW** stands for **World Wide Web**. A technical definition of the World Wide Web is : all the resources and users on the Internet that are using the Hypertext Transfer Protocol *HTTP*.

A broader definition comes from the organization that Web inventor **Tim Berners-Lee** helped found, the **World Wide Web Consortium W3C**.

The World Wide Web is the universe of network-accessible information, an embodiment of human knowledge.

In simple terms, The World Wide Web is a way of exchanging information between computers on the Internet, tying them together into a vast collection of interactive multimedia resources.

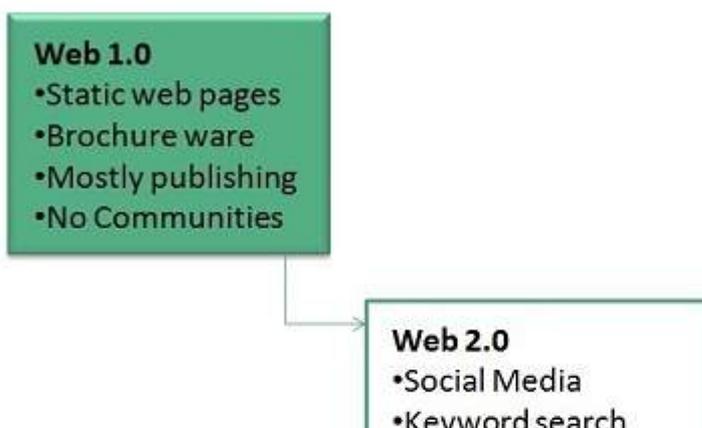
*Internet and Web is not the same thing: Web uses internet to pass over the information.*

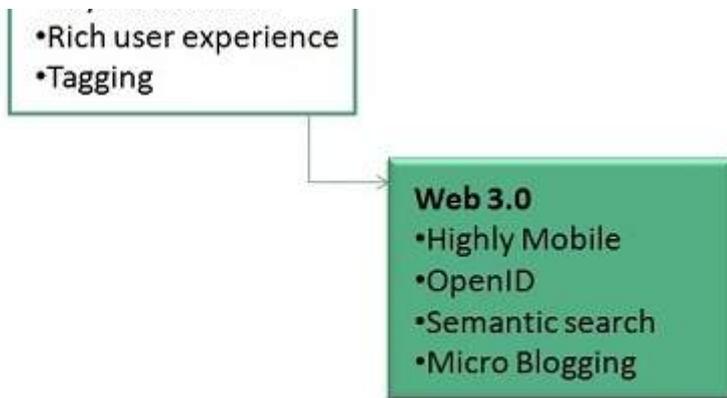


## Evolution

**World Wide Web** was created by **Timothy Berners Lee** in 1989 at **CERN** in **Geneva**. World Wide Web came into existence as a proposal by him, to allow researchers to work together effectively and efficiently at **CERN**. Eventually it became **World Wide Web**.

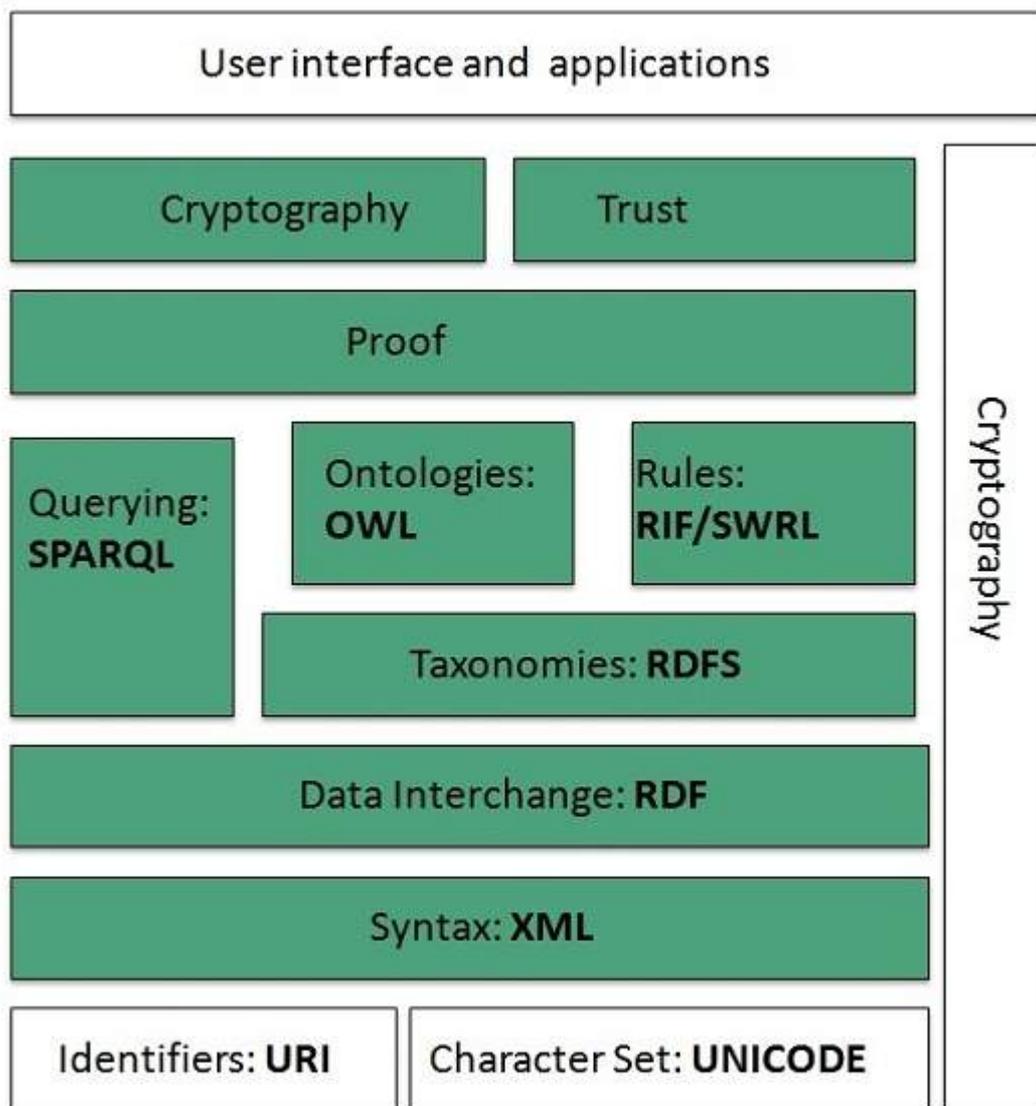
The following diagram briefly defines evolution of World Wide Web:





## WWW Architecture

WWW architecture is divided into several layers as shown in the following diagram:



## Identifiers and Character Set

**Uniform Resource Identifier *URI*** is used to uniquely identify resources on the web and **UNICODE** makes it possible to built web pages that can be read and write in human languages.

## Syntax

**XML *ExtensibleMarkupLanguage*** helps to define common syntax in semantic web.

## Data Interchange

**Resource Description Framework** *RDF* framework helps in defining core representation of data for web. RDF represents data about resource in graph form.

## Taxonomies

**RDF Schema** *RDFS* allows more standardized description of **taxonomies** and other **ontological** constructs.

## Ontologies

**Web Ontology Language** *OWL* offers more constructs over RDFS. It comes in following three versions:

- OWL Lite for taxonomies and simple constraints.
- OWL DL for full description logic support.
- OWL for more syntactic freedom of RDF

## Rules

**RIF** and **SWRL** offers rules beyond the constructs that are available from **RDFs** and **OWL**. Simple Protocol and **RDF Query Language** *SPARQL* is SQL like language used for querying RDF data and OWL Ontologies.

## Proof

All semantic and rules that are executed at layers below Proof and their result will be used to prove deductions.

## Cryptography

**Cryptography** means such as digital signature for verification of the origin of sources is used.

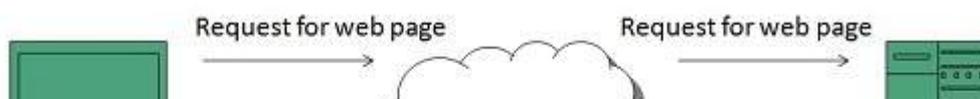
## User Interface and Applications

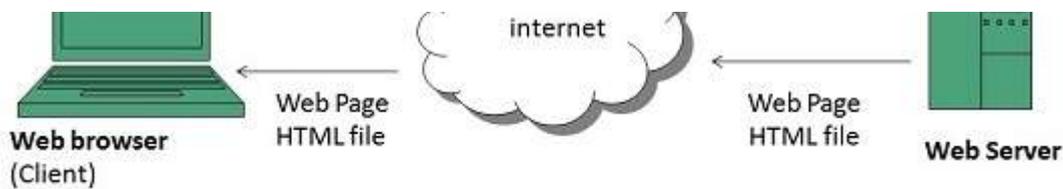
On the top of layer **User interface and Applications** layer is built for user interaction.

## WWW Operation

**WWW** works on client- server approach. Following steps explains how the web works:

1. User enters the URL (say, **http://www.tutorialspoint.com**) of the web page in the address bar of web browser.
2. Then browser requests the Domain Name Server for the IP address corresponding to **www.tutorialspoint.com**.
3. After receiving IP address, browser sends the request for web page to the web server using HTTP protocol which specifies the way the browser and web server communicates.
4. Then web server receives request using HTTP protocol and checks its search for the requested web page. If found it returns it back to the web browser and close the HTTP connection.
5. Now the web browser receives the web page, It interprets it and display the contents of web page in web browser's window.





## Future

There had been a rapid development in field of web. It has its impact in almost every area such as education, research, technology, commerce, marketing etc. So the future of web is almost unpredictable.

Apart from huge development in field of WWW, there are also some technical issues that W3 consortium has to cope up with.

## User Interface

Work on higher quality presentation of 3-D information is under development. The W3 Consortium is also looking forward to enhance the web to full fill requirements of global communities which would include all regional languages and writing systems.

## Technology

Work on privacy and security is under way. This would include hiding information, accounting, access control, integrity and risk management.

## Architecture

There has been huge growth in field of web which may lead to overload the internet and degrade its performance. Hence more better protocol are required to be developed.

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## What is Internet?

The Internet is essentially a global network of computing resources. You can think of the Internet as a physical collection of routers and circuits as a set of shared resources.

Some common definitions given in the past include –

- A network of networks based on the TCP/IP communications protocol.
- A community of people who use and develop those networks.
- A community of people who use and develop those networks.

## Internet-Based Services

Some of the basic services available to Internet users are –

- **Email** – A fast, easy, and inexpensive way to communicate with other Internet users around the world.
- **Telnet** – Allows a user to log into a remote computer as though it were a local system.
- **FTP** – Allows a user to transfer virtually every kind of file that can be stored on a computer from one Internet-connected computer to another.
- **UseNet news** – A distributed bulletin board that offers a combination news and discussion service on thousands of topics.
- **World Wide Web WWW** – A hypertext interface to Internet information resources.

## What is WWW?

WWW stands for **World Wide Web**. A technical definition of the World Wide Web is – All the resources and users on the Internet that are using the Hypertext Transfer Protocol *HTTP*.

A broader definition comes from the organization that Web inventor Tim Berners-Lee helped found, the World Wide Web Consortium *W3C*: The World Wide Web is the universe of network-accessible information, an embodiment of human knowledge.

In simple terms, The World Wide Web is a way of exchanging information between computers on the Internet, tying them together into a vast collection of interactive multimedia resources.

## What is HTTP?

HTTP stands for **Hypertext Transfer Protocol**. This is the protocol being used to transfer hypertext documents that makes the World Wide Web possible.

A standard web address such as [Yahoo.com](http://www.yahoo.com) is called a URL and here the prefix **http** indicates its protocol

## What is URL?

URL stands for **Uniform Resource Locator**, and is used to specify addresses on the World Wide Web. A URL is the fundamental network identification for any resource connected to the web *e. g. , hypertextpages, images, andsoundfiles.*

A URL will have the following format –

```
protocol://hostname/other_information
```

The protocol specifies how information is transferred from a link. The protocol used for web

resources is HyperText Transfer Protocol *HTTP*. Other protocols compatible with most web browsers include FTP, telnet, newsgroups, and Gopher.

The protocol is followed by a colon, two slashes, and then the domain name. The domain name is the computer on which the resource is located.

Links to particular files or subdirectories may be further specified after the domain name. The directory names are separated by single forward slashes.

## **What is Website?**

Currently you are on our website [Tutorialspoint.com](http://Tutorialspoint.com) which is a collection of various pages written in HTML markup language. This is a location on the web where people can find tutorials on latest technologies. Similarly, there are millions of websites available on the web.

Each page available on the website is called a *web page* and first page of any website is called *home page* for that site.

## **What is Web Server?**

Every Website sits on a computer known as a Web server. This server is always connected to the internet. Every Web server that is connected to the Internet is given a unique address made up of a series of four numbers between 0 and 256 separated by periods. For example, 68.178.157.132 or 68.122.35.127.

When you register a Web address, also known as a domain name, such as [tutorialspoint.com](http://tutorialspoint.com) you have to specify the IP address of the Web server that will host the site.

We will see different type of Web servers in a separate chapter.

## **What is Web Browser?**

Web Browsers are software installed on your PC. To access the Web you need a web browsers, such as Netscape Navigator, Microsoft Internet Explorer or Mozilla Firefox.

Currently you must be using any sort of Web browser while you are navigating through my site [tutorialspoint.com](http://tutorialspoint.com). On the Web, when you navigate through pages of information this is commonly known as *browsing or surfing*.

We will see different type of Web browsers in a separate chapter.

## **What is SMTP Server?**

SMTP stands for **S**imple **M**ail **T**ransfer **P**rotocol Server. This server takes care of delivering emails from one server to another server. When you send an email to an email address, it is delivered to its recipient by a SMTP Server.

## **What is ISP?**

ISP stands for **I**nternet **S**ervice **P**rovider. They are the companies who provide you service in terms of internet connection to connect to the internet.

You will buy space on a Web Server from any Internet Service Provider. This space will be used to host your Website.

## **What is HTML?**

HTML stands for **H**yper **T**ext **M**arkup **L**anguage. This is the language in which we write web pages for any Website. Even the page you are reading right now is written in HTML.

This is a subset of Standard Generalized Mark-Up Language *SGML* for electronic publishing, the specific standard used for the World Wide Web.

## **What is Hyperlink?**

A hyperlink or simply a link is a selectable element in an electronic document that serves as an

access point to other electronic resources. Typically, you click the hyperlink to access the linked resource. Familiar hyperlinks include buttons, icons, image maps, and clickable text links.

## What is DNS?

DNS stands for **D**omain **N**ame **S**ystem. When someone types in your domain name, `www.example.com`, your browser will ask the Domain Name System to find the IP that hosts your site. When you register your domain name, your IP address should be put in a DNS along with your domain name. Without doing it your domain name will not be functioning properly.

## What is W3C?

W3C stands for **W**orld **W**ide **W**eb Consortium which is an international consortium of companies involved with the Internet and the Web.

The W3C was founded in 1994 by Tim Berners-Lee, the original architect of the World Wide Web. The organization's purpose is to develop open standards so that the Web evolves in a single direction rather than being splintered among competing factions. The W3C is the chief standards body for HTTP and HTML.

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