

What are the types of servers?

According to the needs of the new era, there are many [types of servers](#) available.

A server is a device or computer in a network that performs the task of supervising network resources.

For example, A file server is a storage device that works only to store files.

These help the user to save the file in the server network. A server cannot perform any other task except its essential server task. If you are using a **multiprocessing operating system**, then a single system can simultaneously run many programs.

The server is of different types and also provides various services.

1. Web Server

Domain Controller - elementary server, to look after all the devices are communicating within the env called Active Directory which is stored on this server.

Web servers in the websites that are on the internet have their data stores, and this server whenever a user is connected to the web browser, then any user from the web browser. When requesting to see the website. This browser connects to the web server and sends the data of the website to the user's device.

2. Email Server

Email Server helps send and receive messages and stores all the details and messages of the users' account on the server.

For example, suppose you are sending a mail to your friend, then after writing the message, you click on the send button, after that, they will send the message. The mail server sends it to your friend's account using the SMTP protocol.

3. File Server

The file server helps in transferring files through the network. The file server stores and manages all the files in a computer and sends a copy of the file in the computer to the request of the users. The file server is used on the local network.

4. Application Server

Application Servers place a large amount of computing territory between database servers and end-users, which are regularly bonded together.

5. Audio/Video Server

With the help of **Audio / Video Servers**, the ability in multimedia applications comes so that they can broadcast on websites, streaming multimedia contents.

Multimedia streaming is a technique for transporting data. This technology has also increased a lot due to the growth of the Internet. Streaming is a perfect solution for users who do not have the facility to download large multimedia files.

When the client-side receives the data and forward it in the form of a steady stream, then it processes that data and then immediately converts it to sound and pictures in their desired format. Gradually many competing streaming technologies are coming now.

6. Chat Server

With the help of these **Chat Servers**, many users can now have a conversation and exchange data and information with each other in the same environment, and it is possible with real-time discussion capabilities because natural- Time only means being instant.

It also offers many other real-time features such as navigation, moving objects to display simultaneously when text is appearing. Real-time only takes a minute or a few seconds to react.

7. Fax Server

This **Fax Server** is commonly used in large organisations where time is money. Fax Servers saves time and reduces incoming and outgoing telephone resources.

8. FTP Server

FTP is the complete form of the **file transfer protocol**. This is an ancient internet service that helps users move files from one place to another very securely. **FTP Servers** also provides file safety, transfer control and organisation of files.

9. Groupware Server

The main objective behind the creation of **Groupware Server** was that it allows users to work jointly with ease, irrespective of whoever is in any place, for this

internet or a mutual intranet is used. Thus, near Work can be done simultaneously in the environment.

10. IRC Servers

IRC (Internet Relay Chat) Servers are used to obtain real-time abilities. IRC has a complete form of internet relay chat in which many split networks of servers are located which permit users to attach through an IRC network.

11. List Server

List servers are a fantastic method to the mailing list that brings statements, newsletters, or publicity. These List Servers are interactive discussions that are open to the community.

12. Mail Server

Mail Servers have the function of storing email in mutual networks with the help of LANs and WANs on the Internet.

13. News Servers

News Servers are used to share and deliver news, for this USENET news network is used because many people use it.

14. Proxy Server

Proxy Servers are used to filter requirements, to get a better appearance and to share out connections. Proxy Servers often exist in a client program, usually in a Web browser and an external server.

15. Telnet Server

Through these **Telnet Servers** in a user computer, you can do your work by logging on.

Servers Operating Systems

Let us now know that there are some examples of Servers operating critical systems.

1. Microsoft Windows servers

These servers are from Microsoft Windows. Microsoft's first natural server operating system was Windows NT. Currently, the current Windows Server version is Windows Server 2016. This version supports many applications and databases.

2. Linux / Unix servers

these Linux / Unix servers are a major, major player in server operating systems. It has multiple versions, including Red Hat Enterprise Linux, Debian, and CentOS. Linux / Unix servers are also considered open-source operating systems.

3. NetWare

As the client-server era is expanding. In such a situation, NetWare can become a significant player in the server software space. Now NetWare has made its server operating system a Linux-based. Moved to the kernel, and together, it is named Novell Open Enterprise Server (OES).

4. Cloud Servers

Virtual servers hosted in a third-party infrastructure are also on an open network, such as on the Internet; they are called cloud servers.

By the way, there are many cloud server providers present today; the main ones are Google's Cloud Platform, Microsoft Azure, and IBM

What is a web application?

A website application, which is also popularly known as a web app, is a software application program that uses web-based technology to perform specific tasks. Remote web servers host web applications and store relevant information from numerous connected computers. You can use a client program to run the web applications and access or enter the required data. That is why people often refer to web apps as client-server programs.

How does a web application work?

A web app requires mainly three elements to function properly. This includes a web server to handle requests from the client, an application server to execute the tasks

requested and a database to store the information. Here is how a web application typically works:

- The user will connect to the Internet and create a request to the web server through the application's user interface.
- The web server will process the request and send it to the right web app server.
- The web application server will perform the required task and generate the results of the required data.
- The web app server will send the information back to the web server.
- The web server will send the requested information to the client's device such as a laptop, desktop or mobile phone.
- The requested information will appear on the user's display

Example of a web application

Web applications include online forms, shopping carts, word processors, spreadsheets, video and photo editing, file conversion, file scanning, and email programs such as Gmail, Yahoo and AOL. Popular applications include [Google Apps](#) and [Microsoft 365](#).

Google Apps for Work has Gmail, Google Docs, Google Sheets, Google Slides, online storage and more. Other functionalities include online sharing of documents and calendars. This lets all team members access the same version of a document simultaneously.

Benefits

Web applications have many different uses, and with those uses, comes many potential benefits. Some common benefits of Web apps include:

- Allowing multiple users access to the same version of an application.
- Web apps don't need to be installed.
- Web apps can be accessed through various platforms such as a desktop, laptop, or mobile.
- Can be accessed through multiple browsers.

Web interface

The interaction between a user and software running on a Web server. The user interface is the Web browser and the Web page it downloaded and rendered

Web Standards & Accessible Design

What is Web Accessibility

Web accessibility means that websites, tools, and technologies are designed and developed so that people with disabilities can use them. More specifically, people can:

- perceive, understand, navigate, and interact with the Web
- contribute to the Web

Web accessibility encompasses all disabilities that affect access to the Web, including:

- auditory
- cognitive
- neurological
- physical
- speech
- visual

Web accessibility also benefits people *without* disabilities, for example:

- people using mobile phones, smart watches, smart TVs, and other devices with small screens, different input modes, etc.
- older people with changing abilities due to ageing
- people with “temporary disabilities” such as a broken arm or lost glasses
- people with “situational limitations” such as in bright sunlight or in an environment where they cannot listen to audio

- people using a slow Internet connection, or who have limited or expensive bandwidth

Accessibility is Important for Individuals, Businesses, Society

The Web is an increasingly important resource in many aspects of life: education, employment, government, commerce, health care, recreation, and more.

It is essential that the Web be accessible in order to provide equal access and equal opportunity to people with diverse abilities.

Access to information and communications technologies, including the Web, is defined as a basic human right in the United Nations Convention on the Rights of Persons with Disabilities (UN [CRPD](#)).

The Web offers the possibility of unprecedented access to information and interaction for many people with disabilities. That is, the accessibility barriers to print, audio, and visual media can be much more easily overcome through web technologies.

Accessibility supports social inclusion for people with disabilities as well as others, such as:

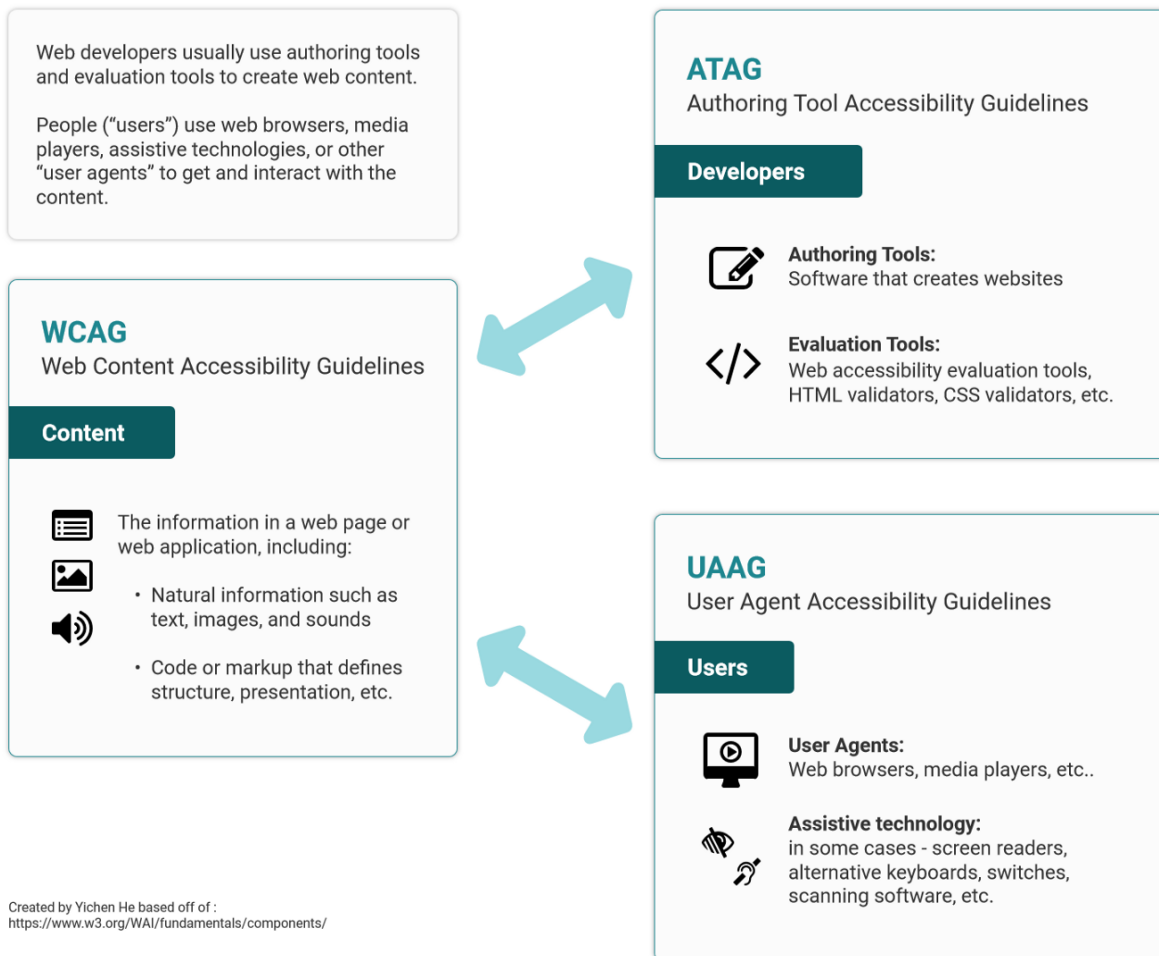
- older people
- people in rural areas
- people in developing countries

Web accessibility means that websites, tools, and technologies are designed and developed so that people with disabilities can use them. More specifically, it is so people can **perceive, understand, navigate, and interact** with the Web as well as **contribute** to the Web. Additionally it is also helpful for people without

disabilities such as people with “situational limitations” such as in bright sunlight or in an environment where they cannot listen to audio.

W3C - WAI

Web Accessibility Initiative Guidelines



Web Accessibility Initiative (WAI) is seen by most as the standard in Web Accessibility. WAI made up of three primary components. ATAG for development, WCAG for content and UAAG for users. WAI is developed by the Accessibility Guidelines Working Group (AG WG) that is part of the World Wide Web Consortium (W3C).

Let's take a look at each of these three sections:

WCAG

[Web Content Accessibility Guidelines \(WCAG\)](#) addresses web content, and is used by developers, authoring tools, and accessibility evaluation tools. Something that is neat about WCAG standards is that it is *backwards compatible*, meaning something that is compliant with the latest version (2.1) would also pass (2.0).

WCAG is one of the most common standards for UX(user experience) and Product designers as it applies to all the content. There is a simple rating system for all the guidelines under WCAG:



Level A (minimum)

The most basic web accessibility features. The website *MUST* satisfy this checkpoint. Otherwise, one or more groups will find it impossible to access information in the document. Satisfying this checkpoint is a basic requirement for some groups to be able to use web documents.

Level AA (mid-range)

Deals with the biggest and most common barriers for disabled users. Website SHOULD satisfy this checkpoint. Otherwise, one or more groups will find it difficult to access information in the document. Satisfying this checkpoint will remove significant barriers to accessing Web documents.

Level AAA (highest)

The highest level of web accessibility. A website MAY address this checkpoint. Otherwise, one or more groups will find it somewhat difficult to access information in the document. Satisfying this checkpoint will improve access to web documents.

A summary of the general [WCAG 2.0 Guidelines](#) are as follows:

*(*indicates Cognitive Accessibility Success Criteria)*

1. Perceivable



Text Alternatives: Provide text alternatives for any non-text content so that it can be changed into other forms people need, such as large print, speech, symbols or simpler language.

Time-based Media: Provide alternatives for time-based media (commonly videos) such as captions, described audio or a media alternative.

Adaptable*: Create content that can be presented in different ways (for example simpler layout) without losing information or structure. This includes considerations for, proper labeling, consideration for different screen sizes etc.

Distinguishable: Make it easier for users to see and hear content including separating foreground from background. This includes common UI decisions such as contrast and text size in addition to audio considerations like background noise.

2. Operable



Keyboard Accessible: Make all functionality available from a keyboard. This mostly refers to the ability to move focus to and from all components of the page using a keyboard interface.

Enough Time*: Provide users enough time to read and use content. This includes moving, blinking, scrolling, or auto-updating information as well as interruptions and time-outs.

Seizures and Physical Reactions: Do not design content in a way that is known to cause seizures or physical reactions. This generally means limiting flashes and motion animation to below the approved threshold.

Navigable*: Provide ways to help users navigate, find content, and determine where they are. This includes important UI decisions like information architecture, focus order, and proper titles, headers and labelling.

Input Modalities: Make it easier for users to operate functionality through various inputs beyond keyboard. An example of this is consideration for the minimum size of touch targets.

3. Understandable



Readable*: Make text content readable and understandable. This could be as simple as identifying the human language of a page but can also include advanced standards such as identifying and explaining idioms or abbreviations.

Predictable*: Make Web pages appear and operate in predictable ways. This includes predictable interactions from components and consistent form of navigation.

Input Assistance*: Help users avoid and correct mistakes. This includes identifying input errors and providing helpful, timely and relevant instructions or suggestions.

4. Robust



Compatible: Maximize compatibility with current and future user agents. This is mostly work for the developers to make sure the product is built in a way that supports assistive technologies.

ATAG

[Authoring Tool Accessibility Guidelines \(ATAG\)](#) addresses authoring tools - software and services that “authors” (web developers, designers, writers, etc.) use to produce web content (static web pages, dynamic web applications, etc.). Some good example of these are popular social media sites, forums and wikis.

ATAG is split into two parts that make the authoring tools themselves accessible, so that people with disabilities can create web content, *and* help authors create more accessible web content — specifically: enable, support, and promote the production of content that conforms to WCAG.

UAAG

[User Agent Accessibility Guidelines \(UAAG\)](#) addresses web browsers and media players, including some aspects of assistive technologies.

UAAG documents explain how to make user agents accessible to people with disabilities. User agents include browsers, browser extensions, media players, readers and other applications that render web content.

Some accessibility needs are better met in the browser than in the web content, such as text customization, preferences, and user interface accessibility. A user agent that follows UAAG 2.0 will improve accessibility through its own user interface and its ability to communicate with other technologies, including assistive technologies.

Unless you work on a user agent product such as a browser, you will probably not be required to be familiar with these standards. They are somewhat similar to WCAG with five base principles of Perceivable, Operable, Understandable, Programmatic Access and Specifications & Conventions.