



What is a Server?

A server is a hardware device or software that processes requests sent over a network and replies to them. A client is the device that submits a request and waits for a response from the server. The computer system that accepts requests for online files and transmits those files to the client is referred to as a “server” in the context of the Internet.

What is a Server?

A Server is a program or a device that provides functionality for called clients which are other programs or devices. This architecture is called the [client-server model](#).

A single overall computation is distributed across multiple processes or devices. Servers can provide various functionalities called services. These services include sharing data or resources among multiple clients or performing computations for a client. Multiple clients can be served by a single server, and a single client can use multiple servers.

Uses of Servers

A client process may run on the same device. It can also connect over a [network](#) to a server to run on a different device. Examples of servers may include database servers, mail servers, print servers, [file servers](#), [web servers](#), application servers, and game servers. Server systems are implemented communication., i.e., a client sends a request to the [server](#) performs some action and sends a response typically with a result or acknowledgement.



Designating a computer as server-class hardware means that it is specialized for running servers on it. This implies that it is more powerful and reliable than standard personal computers. However large [computing clusters](#) may comprise many relatively simple, replaceable server components.

Server Component

Together, server components are intended to offer clients functionality, resources, and/or services. Specific component form factor and function of a given server, covered here.



- **Hardware:** The dedicated server's [central memory](#), [storage device](#), network interface are all included in this.

- **Server OS:** This [operating system \(OS\)](#) was created with a particular kind of client/server environment in mind.
- **Network Connectivity:** Over a [local area network \(LAN\)](#), [wide area network \(WAN\)](#), or the [internet](#), server programs connect to the network architecture and communicate with client devices. To offer redundancy and accommodate various network setups, certain server form factors contain several network interfaces.
- **Management and Monitoring Tools:** Instruments for remote management and performance monitoring are frequently included with servers.
- **Server Software:** This server software supports a particular use case. [Software](#) for email servers, web servers, and [database](#) servers are a few examples.
- **High-Availability Features:** [High-availability \(HA\)](#) capabilities are included on some servers to reduce downtime and guarantee continuous operation. This involves having access to numerous storage systems, backup power supply and network interfaces, and configuration management tools that enable automatic failover and [load balancing](#).

How a Server Works?

A device needs to be set up to listen for client requests across a network connection in order to perform the role of a server. The operating system may include this functionality as an installed application, a role, or a combination of the two.

The windows server operating system from microsoft has the capability to hear and respond to client requests. The server can handle increase with additional Another illustration is when an additional put on top of an operating system to hand browsers. A client sends a request over th data or functionality from a server. The server gets this request and



provides the necessary information in response. This is the client-server networking request and response model, commonly referred to as the call and response model.

As part of a single request and response, a server frequently completes a variety of additional tasks, such as confirming the requestor's identity, making sure the client has permission to access the data or resources requested, and correctly formatting or returning the required response in the expected manner.

Types of Servers and Their Applications

1. Application Server

These servers host web apps (computer programs that run inside a web browser) allowing users in the network to run and use them preventing the installation of a copy on their own computers. These servers need not be part of the [World Wide Web](#). Their clients are computers with a [web browser](#).

2. Catalog Server

These servers maintain an index or table of contents of information that can be found across a large distributed network. Distributed networks may include computers, users, files shared on file servers, and web apps. Examples of catalog servers are directory servers and name servers. Their clients are any computer program that needs to find something on the network. An example can be a domain an email client looking for an [email address](#)



3. Communication Server

These servers maintain an environment needed for one communication endpoint to find other endpoints and then communicate with them. These servers may or may not include a directory of communication endpoints and a presence detection service, depending on the openness and security parameters of the network. Their clients are communication endpoints.

4. Computing Server

These servers share vast amounts of computing resources which include CPU and random-access memory over a network. Any computer program that needs more CPU power and [RAM](#) than a personal computer can probably afford can use these types of servers. The client must be a networked computer to implement the client-server model which is a necessity.

5. Database Server

These servers maintain and share any form of database over a network. A database is an organized collection of data with predefined properties that may be displayed in a table. Clients of these servers are [spreadsheets](#), [accounting software](#), asset management software, or virtually any computer program that consumes well-organized data, especially in large volumes.

6. Fax Server



These servers share one or more fax m
eliminates the hassle of physical access.
the client of these servers.

7. File Server

Shares files and folders, storage space to hold files and folders, or both, over a network. Networked computers are the intended clients, even though local programs can be clients.

8. Game Server

These servers enable several computers or gaming devices to play multiplayer games. Personal computers or gaming consoles are their clients.


9. Mail Server

These servers make email communication possible in the same way as a post office makes snail mail communication possible. Clients of these servers are senders and recipients of email.

10. Print Server

These servers share one or more printers over a network which eliminates the hassle of physical access. Their clients are computers in need of printing something.

11. Proxy Server

This server acts as an intermediary between a client and a server accepting incoming traffic from the client and sending it to the server. Reasons to use a proxy server include content control and filtering,  improving traffic performance, preventing simply routing the traffic over a large and are any networked computer.

12. Web Server

These servers host web pages. A web server is responsible for making the World Wide Web possible. Each website has one or more web servers. Their clients are computers with a web browser.

Where Are Servers Stored?

A server is stored in a closet or glass house. These areas help isolate sensitive computers and equipment from people who should not access them.

Remote servers or the servers that are not hosted on-site are located in a data center. For these types of servers, the hardware is managed by another company and configured remotely by you or your company.

Why Are Servers Always On?

The servers are always on because they are commonly used to deliver services that are constantly required, most servers are never turned off. Consequently, when servers fail, they can cause network users and companies many problems. To alleviate these issues, servers are commonly set up to be fault tolerant.

Can Any Computer Make A Server?

The answer is 'Yes'. Any computer act as a server with the right software. You may install an FTP server program on computer and share files between other computers over your network. But, you can make your home computer a server. you have to keep some important points in your mind:

- The computer and the related server software must be in a running mode that is accessible at any time.
- A computer is in server mode, its resou (resources/processing) will not allow it to do any c (other tasks).
- If the services become popular, which y (your) computer can not be capable of handlir (handling).



FAQs on What is a Server?

Q.1: What is a Linux server?

Answer:

A server that is linked to a network or the Internet and is running a version of Linux is known as a [Linux server](#). For example, Linux servers are many of the web servers that host [websites](#) on the Internet.

Q.2: What is server in DBMS?

Answer:

Database servers are used to store, maintain, and give authorized users access to databases that are kept on the server.

Q.3: What are the 4 server roles?

Answer:

The roles [DNS server](#), [DHCP server](#), [File Server](#), and Print Server are a few examples. Some roles, like DNS, exist as a single role service. Other roles, such as Print Server, have multiple roles available, including Internet Printing and local printing.



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Last Updated : 20 Sep, 2023

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