WEB SERVER

WHAT IS WEB SERVER ?

( A web server is computer software that delivers content through the internet and transmits data between the host system and the user’s browser. )

The term web server can refer to hardware or software, or both of them working together.

1. On the hardware side, a web server is a computer that stores web server software and a website's component files (for example, HTML documents, images, CSS stylesheets, and JavaScript files). A web server connects to the Internet and supports physical data interchange with other devices connected to the web.
2. On the software side, a web server includes several parts that control how web users access hosted files. At a minimum, this is an HTTP server. An HTTP server is software that understands [URLs](https://developer.mozilla.org/en-US/docs/Glossary/URL) (web addresses) and [HTTP](https://developer.mozilla.org/en-US/docs/Glossary/HTTP) (the protocol your browser uses to view webpages). An HTTP server can be accessed through the domain names of the websites it stores, and it delivers the content of these hosted websites to the end user's device.

6 points for WEB SERVER

1 – LISTENS

2- ON A PORT

3 – FOR A REQUEST

4 – TRANSPORT PROTOCOL

5 – RESPONSE

6 – RESOURCE

APACHE vs NGINX:-

Commonly, Apache is used as a back-end server due to its native dynamic content processing capabilities and modules. Meanwhile, NGINX is often used as a front-end reverse proxy server and load balancer that distributes client requests.

WHY NEEDED?

-> for security purpose

-> for optimally consume server , and do hosting for sites and for end user

### Apache

Commonly referred to as Apache or **Apache HTTPD**, the **Apache HTTP Server**is a free and open-source web server software. It processes client requests and serves web content via [**Hypertext Transfer Protocol**](https://www.hostinger.in/tutorials/http-vs-https)(HTTP).

The **Apache Software Foundation**released the [**Apache web server**](https://www.hostinger.in/tutorials/what-is-apache) in 1995 and has maintained it ever since. It was the most dominant web server during the early world wide web and remains popular today.

Apache HTTP Server currently powers around [**30% of websites**](https://w3techs.com/technologies/details/ws-apache) worldwide, making it the second biggest web server in the market.

### NGINX

[**NGINX**](https://www.hostinger.in/tutorials/what-is-nginx) – pronounced as “**Engine X**” – is one of the most reliable web servers offering scalability and speed. Apache and NGINX have a similar market share size, but the latter is more popular. Both web servers are open-source and free to use.

Software engineer Igor Sysoev started developing NGINX in 2002 to answer the [**C10K problem**](https://webhostinggeeks.com/blog/c10k-problem-understanding-and-overcoming-the-10000-concurrent-connections-challenge/) of the early world wide web. Back then, many web servers could only handle 10,000 connections simultaneously.

NGINX web server was released with an **[asynchronous](https://www.tutorialspoint.com/difference-between-synchronous-and-asynchronous-transmission" \l ":~:text=In Synchronous transmission data is,data unit is byte%2Fcharacter.)** and event-driven architecture, allowing it to process many client requests simultaneously.