What is Nginx?

NGINX is pronounced as "ENGINE-X" is an open source web server. When Nginx had an initial release on October4, 2004 it only served as a web server. But now it is also used as reverse proxy, HTTP cache and load balancer.

High profile companies such as IBM, Microsoft, Google, Adobe, LinkedIn and Facebook etc.…..which uses nginx as a web server.

Nginx was originally created by Igor Sysoev to overcome [C10k Problem](#), which is a problem regarding the performance issue of handling 10,000 concurrent connections.

What is Nginx reverse proxy?

A reverse proxy is an intermediary proxy service which takes a client request, passes it on to one or more servers, and subsequently delivers the server's response to the client. A **reverse proxy server** is a type of proxy server that typically sits behind the firewall in a private network and directs client requests to the appropriate backend server. A reverse proxy

provides an additional level of abstraction and control to ensure the smooth flow of network traffic between clients and servers.

Setting up Nginx reverse proxy

Setting up a nginx reverse proxy which helps in load balancing and increased security. Learn more: [Reverse Proxy](#)

What is Nginx HTTP Cache?

When **caching** is enabled, **NGINX** Plus saves responses in a disk **cache** and uses them to respond to clients without having to proxy requests for the same content every time.

How does NGINX work?

When someone makes a request to open a webpage, the browser contacts the server of that website. Then, the server looks for the requested files for the page and sends it to the browser. This is only the simplest kind of request. It uses single thread for every request.

NGINX performs with an asynchronous, **event-driven architecture.** It means that similar threads are managed under one worker process, and each worker process contains smaller units called worker connections. This whole unit is then

responsible for handling request threads. Worker connections deliver the requests to a worker process, which will also send it to the master process. Finally, the master process provides the result of those requests.

NGINX became excellent for websites such as e-commerce, cloud storage etc.…..

Common features in Nginx

- ➢ Reverse proxy with caching.
- ➢ Load Balancing
- ➢ IPV6
- ➢ Handling of static files, index files, and auto-indexing
- ➢ Web Sockets.

Nginx vs Apache
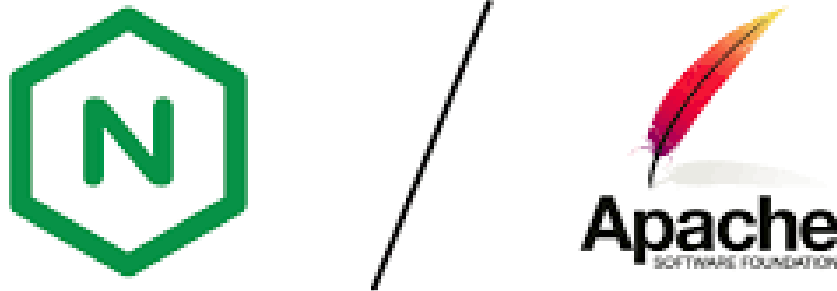
- **Nginx** is an open-source, high-performance asynchronous web server and reverse proxy server whereas **Apache** is an open-source HTTP server.
- **Nginx** is about 2.5 times faster than **Apache** based on the results of a benchmark test running up to 1,000 concurrent connections.
- Clearly, **Nginx** serves static content much faster than **Apache**.

As a conclusion, Nginx serves a lot of static contents at high concurrency levels.