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8 Best Open Source Web Servers in 2024

James Kiarie | Last Updated: January 9, 2024 | Read Time: 7 mins | Open Source, Top Tools, Web Servers
| 28 Comments

It's been a long journey since the first web server was released back in 1991. For quite a long time, Apache was the only mention-worthy webserver. Over time, however, other open-source web servers have gained traction.

In this guide, we look at some of the best open-source web servers.

1. Apache HTTP Server

Apache HTTP Server, colloquially known as Apache or httpd in Red Hat-based distributions is a free and open-source web server developed by Apache Software Foundation under Apache License version 2.

Released in 1995, Apache has grown in leaps and bounds to become one of the most popular and widely used web servers, powering over 23.04% of all websites.

Apache is written in C language and is a highly customizable web server thanks to its tons of modules that extend the web server's functionality.

These include mod_file_cache for caching, mod_ftp to provide FTP support for file uploads and downloads, mod_ssl that allows support for SSL/TLS encryption protocols, and many more.

Additionally, given its rich set of modules, Apache provides multi-protocol support such as both IPv4 and IPv6 support and the commonly used HTTP, HTTP/2, and HTTPS protocols.

Apache also offers virtual hosting support that allows you to host multiple domains or websites. By configuring virtual hosts, a single server can host multiple domains with ease and without any complexities. You can have example.com, example.edu, example.info, and so on.

Check Apache Webpage
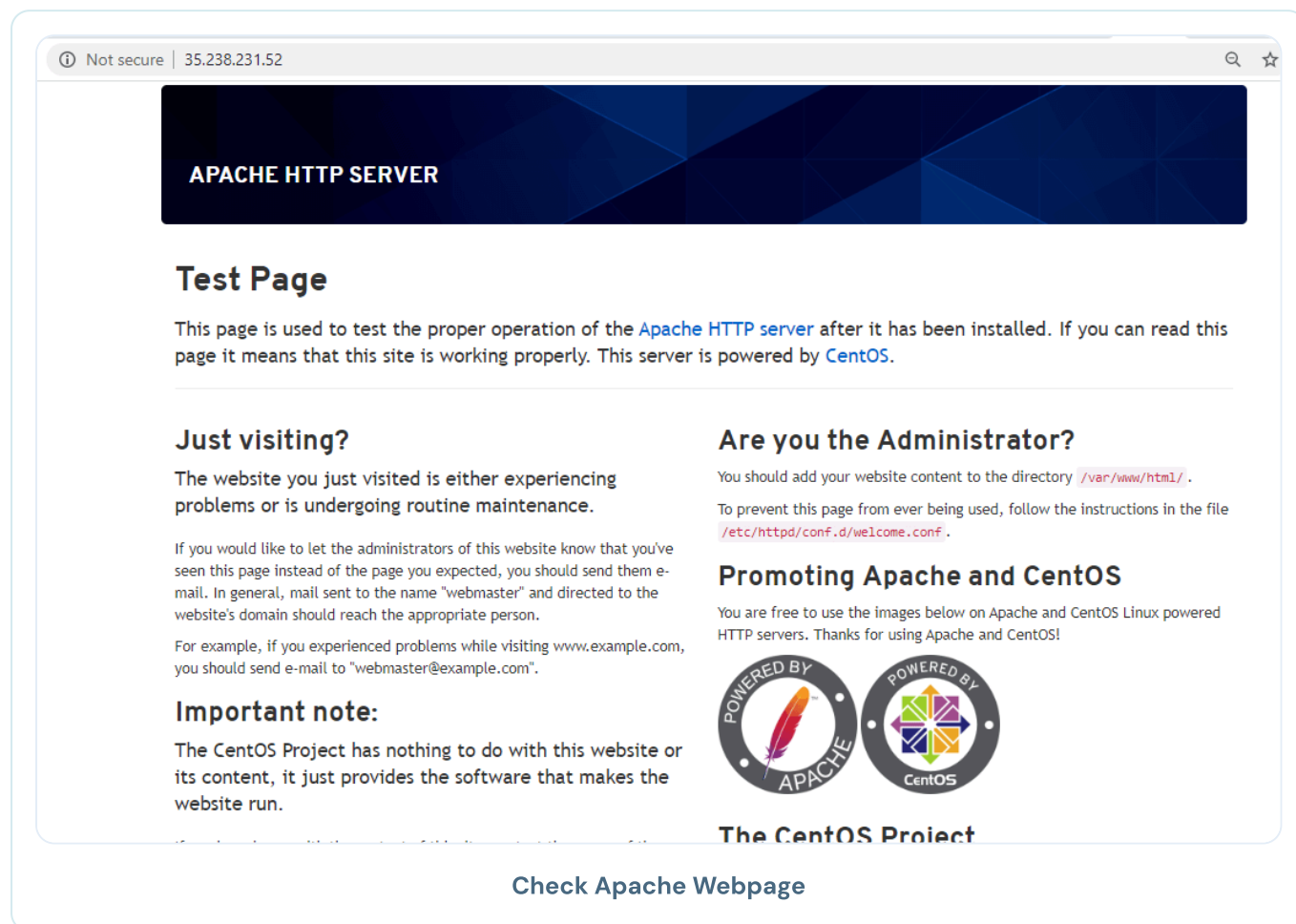
Learn how to install the Apache webserver on Linux distributions using the following guides.

You might also like:

- *How to Install Apache Web Server on Ubuntu*
- *How to Install Apache with Virtual Host on RHEL*

2. Nginx Web Server

Pronounced as Engine-X, Nginx is an open-source high-performance robust web server that also double-ups as a load balancer, reverse proxy, IMAP/POP3 proxy server, and API gateway.

Initially developed by Igor Sysoev in 2004, Nginx has grown in popularity to edge out rivals and become one of the most stable and reliable web servers.

Nginx draws its prominence from its low resource utilization, scalability, and high concurrency. In fact, when properly tweaked, Nginx can handle up to 500,000 requests per second with low CPU utilization. For this reason, it's the most ideal web server for hosting high-traffic websites and beats Apache hands down.

Popular sites running on Nginx include LinkedIn, Adobe, Xerox, Facebook, and Twitter to mention a few.

Nginx is lean on configurations making it easy to make tweaks and just like Apache, it supports multiple protocols, SSL/TLS support, basic HTTP authentication, virtual hosting, load balancing, and URL rewriting to mention a few. Currently, Nginx commands a market share of 33.6% of all the websites hosted.

Check the Nginx Web Page

Learn how to install the Nginx web server on Linux distributions using the following guides.

You might also like:

- *[How to Install Nginx Web Server on Ubuntu](#)*
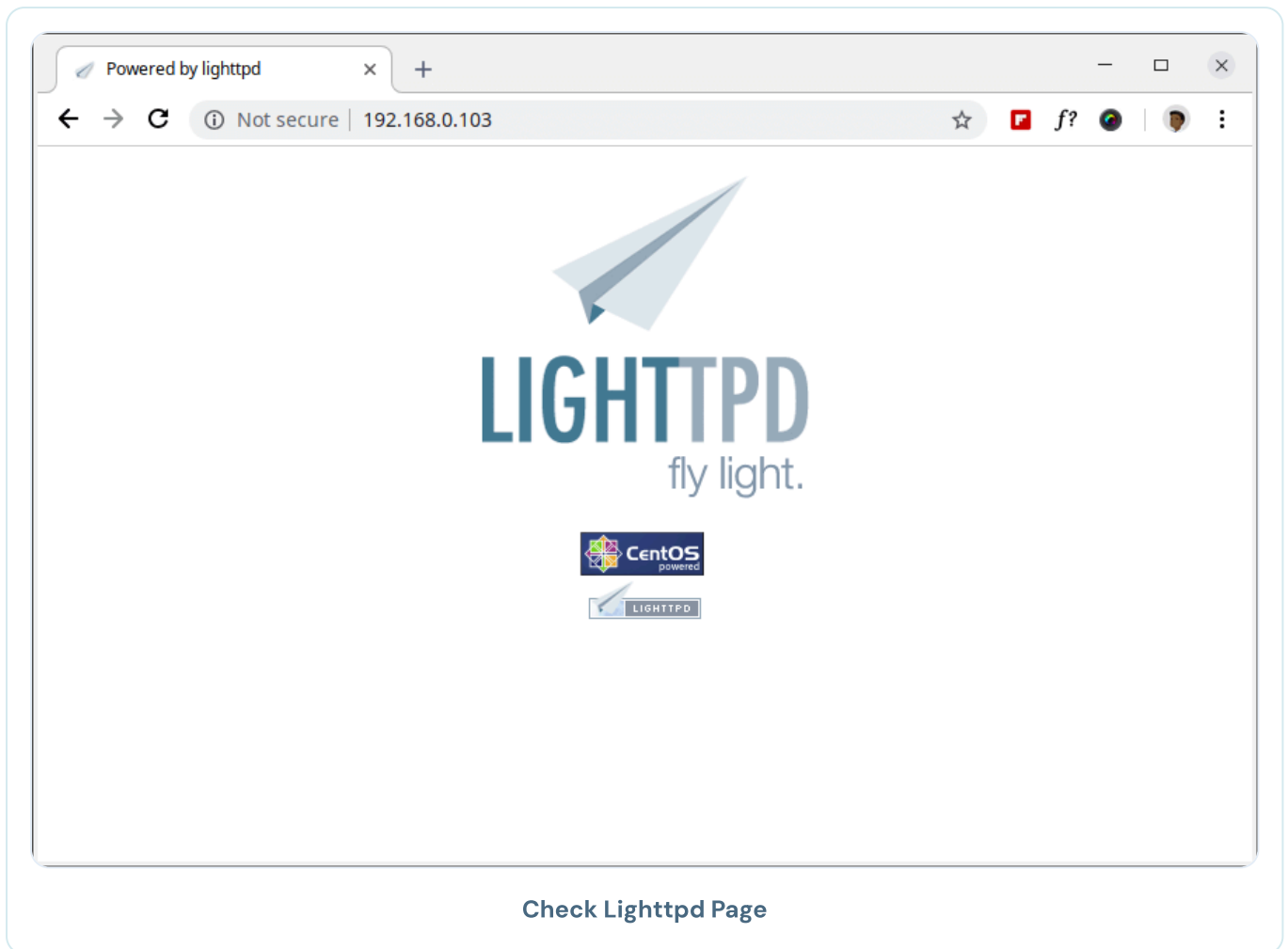- *[How to Install Nginx on RHEL](#)*

3. Lighttpd Web Server

[Lighttpd](#) is a free and open-source web server that is specifically designed for speed-critical applications. Unlike Apache and Nginx, it has a very small footprint (less than 1 MB) and is very economical with the server's resources such as CPU utilization.

Distributed under the BSD license, Lighttpd runs natively on Linux/Unix systems but can also be installed in Microsoft Windows. It's popular for its simplicity, easy set-up, performance, and module support.

Lighttpd's architecture is optimized to handle a large volume of parallel connections which is crucial for high-performance web applications. The web server supports FastCGI, CGI, and SCGI for interfacing programs with the webserver.

It also supports web applications written in a myriad of programming languages with special attention given to PHP, Python, Perl, and Ruby.

Other features include SSL/TLS support, HTTP compression using the mod_compress module, virtual hosting, and support for various modules.

Check Lighttpd Page

Learn how to install the **Lighttpd** web server on Linux distributions using the following guides.

You might also like:

- *How to Install Lighttpd on RHEL*
- *How to Install Lighttpd on Ubuntu*

4. Apache Tomcat

Apache Tomcat is an open-source implementation of **Java** servlet engine, Java Expression Language, and Java Server web pages. It comes across as an ideal option for developers who are building and deploying Java-based applications.

Strictly speaking, **Tomcat** is not your ordinary web server like **Nginx** or **Apache**. It's a Java servlet that comes with extended functionality for interacting with Java servlets while at

the same time implementing technical specifications such as JavaServer Pages (JSP), and Java Expression Language (Java EL).

What sets Tomcat apart from other web servers is that it's geared specifically to serve Java-based content. It was originally developed to provide JSP functionality which lacked in the Apache HTTP server.

You can run Apache Tomcat alongside an Apache HTTP server in a scenario where you are handling projects with both PHP and Java content. Apache HTTP server can handle static & dynamic content as Tomcat handles the JSP functionality.

On its own, however, Apache Tomcat is not a fully-fledged webserver and not as efficient as traditional web servers like Nginx and Apache.

Apache Tomcat Dashboard
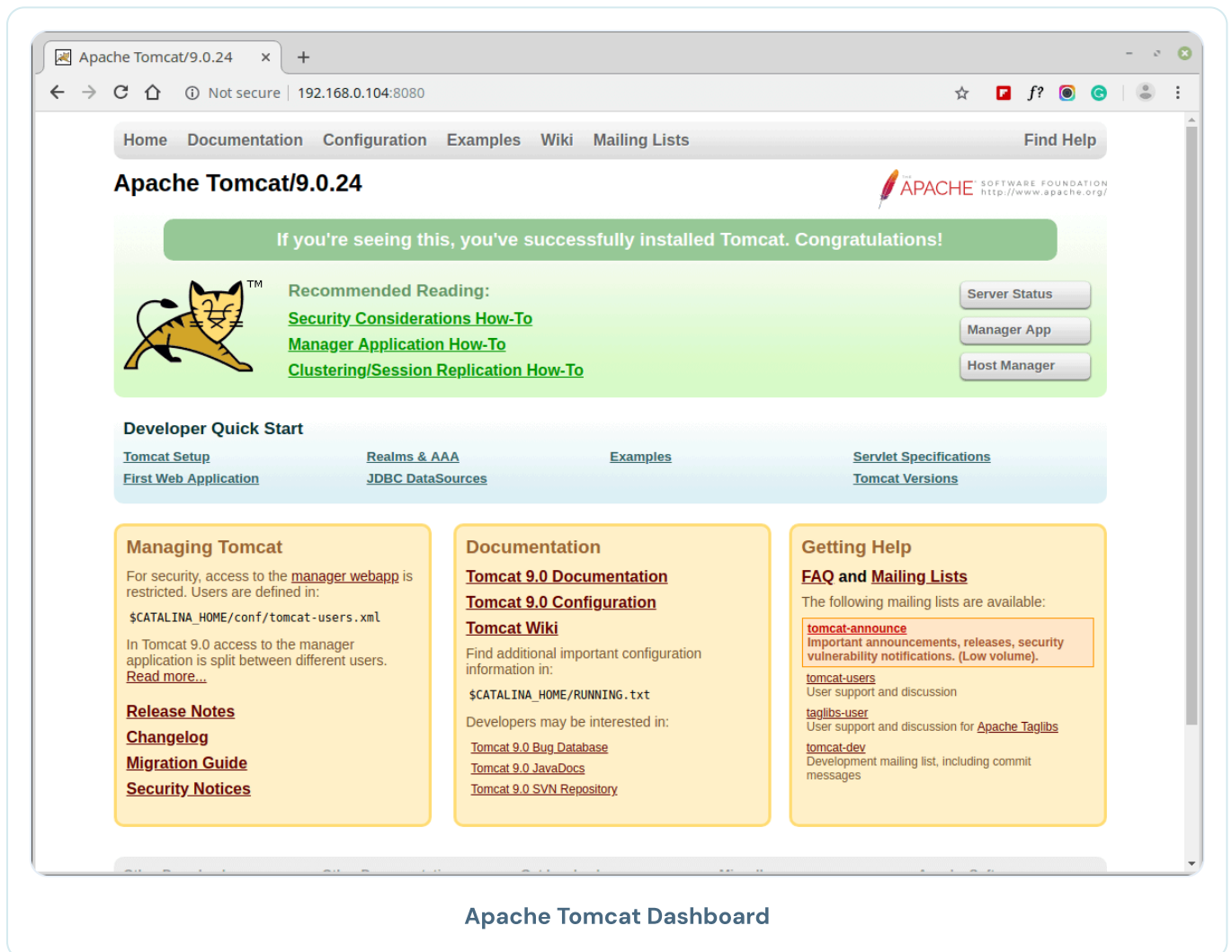
Learn how to install the Apache Tomcat on Linux distributions using the following guides.

You might also like:

- *[How to Install Apache Tomcat in Ubuntu](#)*

- *[How to Install Apache Tomcat in RHEL 8](#)*

- *[How to Install Apache Tomcat in CentOS 8](#)*

- *[How To Install Apache Tomcat on Debian 10](#)*

5. Caddy Web Server

Written in Go, [Caddy](#) is a fast and powerful multiplatform web server that can also act as a reverse proxy, load balancer, and API gateway. Everything is built-in with no dependencies and this aspect makes Caddy easy to install and use.

By default, Caddy supports HTTPS and easily takes care of SSL/TLS certificate renewals. The lack of dependencies increases its portability across various distributions without any conflict in the libraries.

It's an ideal web server for running applications written in GO and offers full support for IPv6 and HTTP/2 to enable fast HTTP requests. It also supports virtual hosting, advanced WebSockets technology, URL rewrites, and redirects, caching and static file serving with compression, and markdown rendering.

Caddy has a very small market share and according to W3techs, it accounts for only 0.05% of the market share.
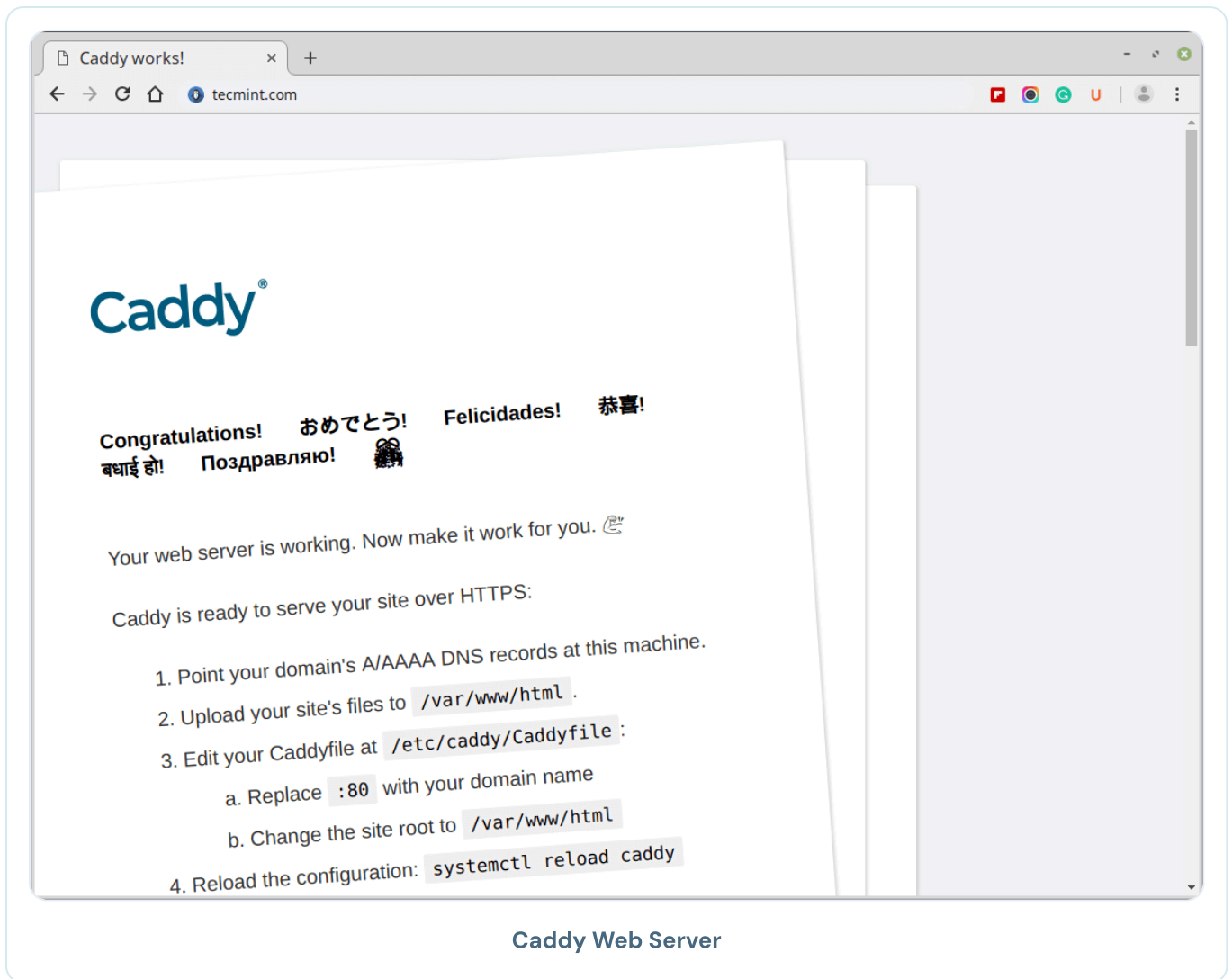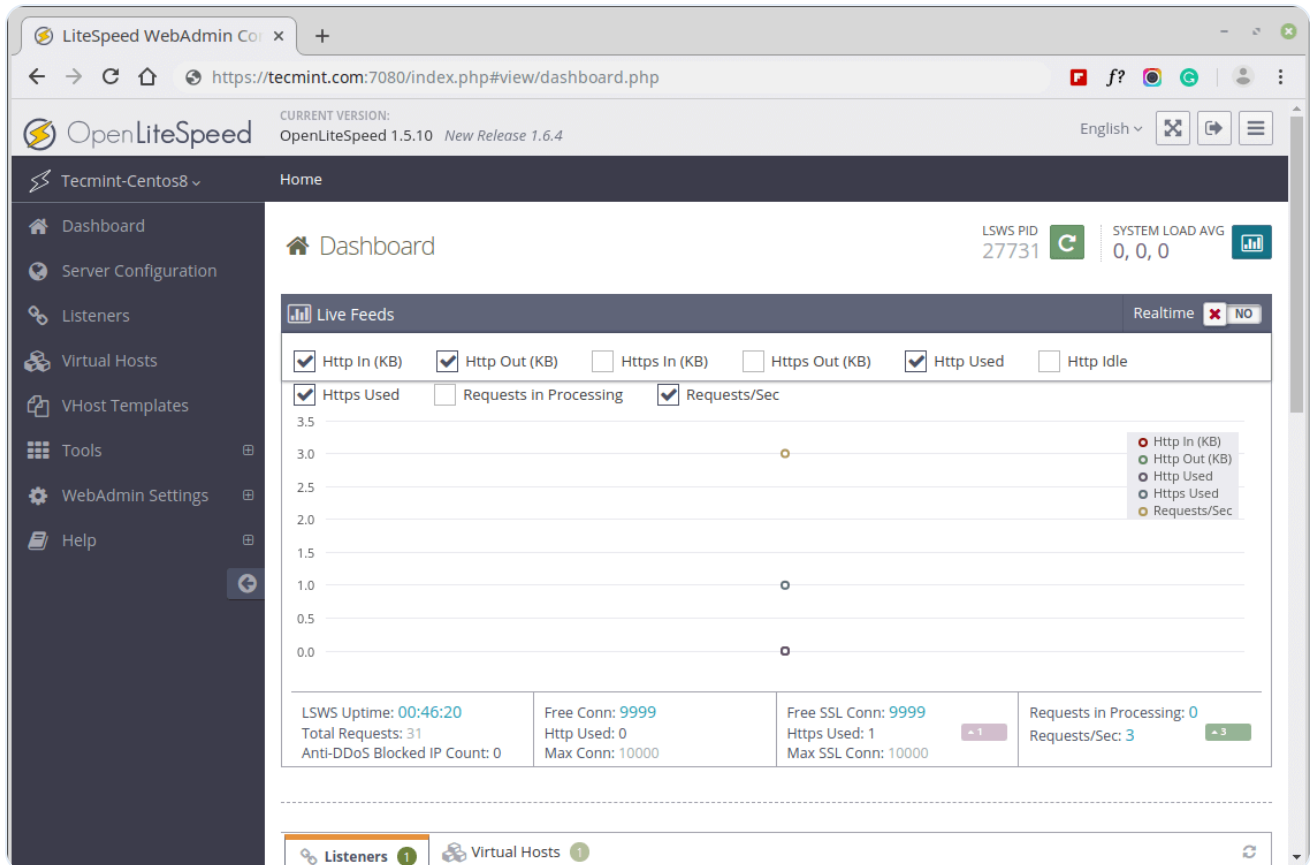
Caddy Web Server

Learn how to install the **Caddy** web server on Linux distributions using the following guides.

[You might also like: [How To Host a Website with HTTPS Using Caddy on Linux](#)]

6. OpenLiteSpeed Web Server

[OpenLiteSpeed](#) is an open-source web server designed for speed, simplicity, security, and optimization. It's based on the **LiteSpeed Enterprise** Web server edition and provides all the essential features in the Enterprise edition.

OpenLiteSpeed Admin Interface

OpenLiteSpeed web server rides on an event-driven, resource-friendly architecture and features a user-friendly WebAdmin GUI that helps you manage your domains/websites and monitor an array of metrics.

It's optimized to execute a wide spectrum of scripts such as Perl, Python, Ruby, and Java. OPenLiteSpeed supports both IPv4 and IPv6 with SSL/TLS support. It provides support for TLS 1.0, 1.1, 1.2, and 1.3.

You also get to enjoy bandwidth throttling, intelligent cache acceleration, HTTP request validation, and IP-based access control. Additionally, you will benefit from high-performance page caching, and the web server's ability to handle thousands of concurrent connections.

Apart from acting as a web server, OpenLiteSpeed can serve as a load balancer and reverse proxy. It's free to download and is available under the GPLv3 license.

Learn how to install the OpenLiteSpeed web server on Linux distributions using the following guides.

[You might also like: [How To Install OpenLiteSpeed on RHEL](#)]

7. Hiawatha Web Server

Written in C, [Hiawatha](#) is a lightweight and secure web server built for speed, security, and ease of use. Its code and features are highly secure and can ward off XSS and SQL injection attacks. Hiawatha also allows you to monitor your server using a special monitoring tool.

Hiawatha Web Server
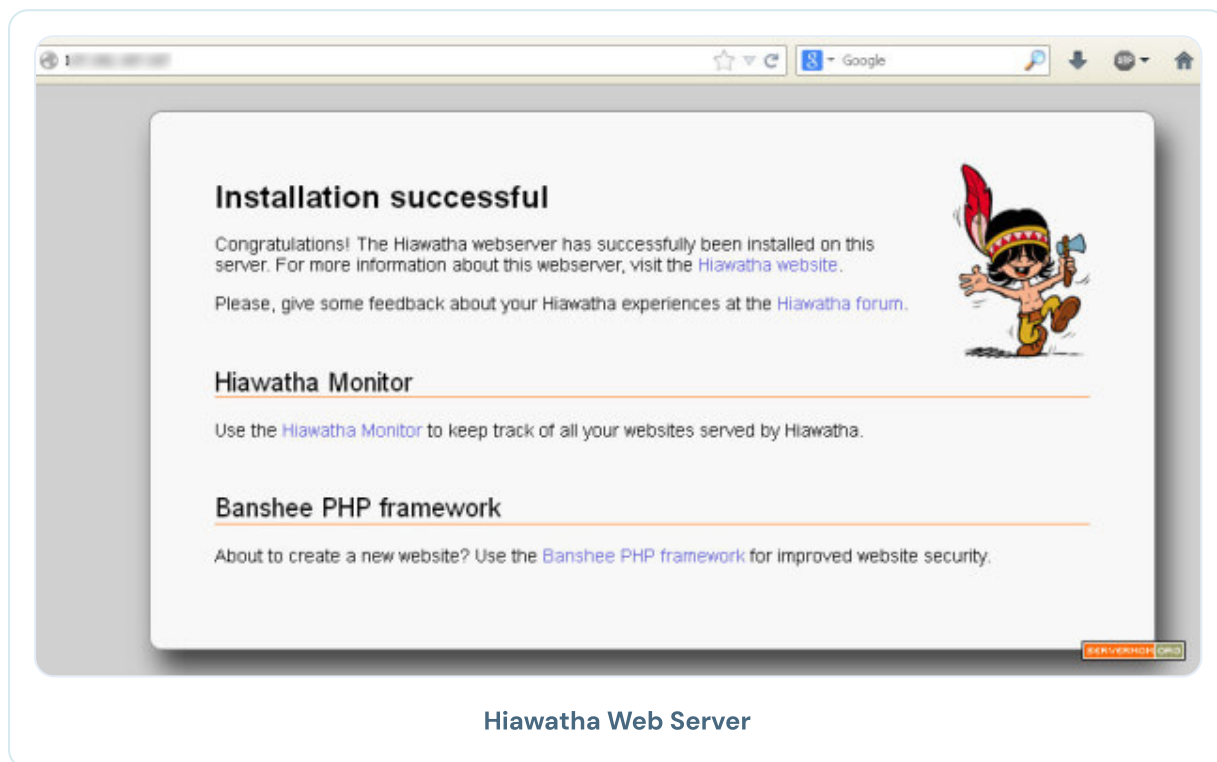
It's also easy to install and comes with ample documentation to guide you through and give you all the information that you need. Hiawatha is recommended for embedded systems or old servers that have low specifications.

8. NodeJS

This might come as a shocker. Yes, [NodeJS](#) is primarily an open-source and cross-platform server-side runtime environment used for building web applications in Javascript. However, it's also bundled with an http module that provides a set of classes and functions that extend its functionality and enable it to play the role of a web server.
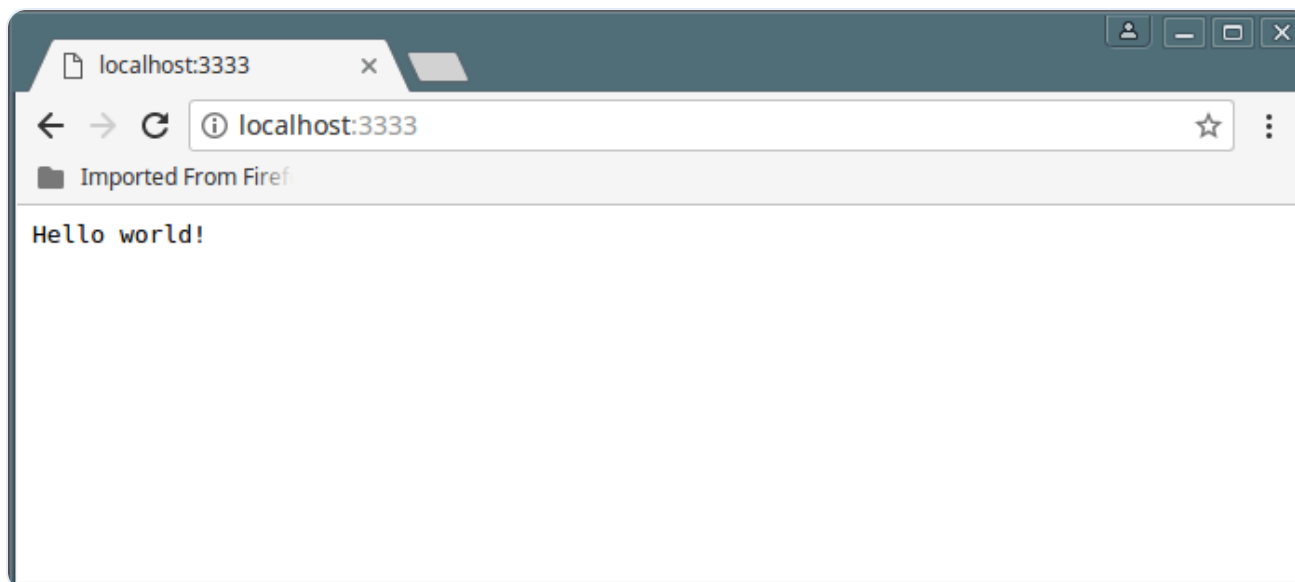
Access Nodejs App from Browser

Learn how to install the **NodeJS** on Linux distributions using the following guides.

[You might also like: [How to Install NodeJS in Linux](#)]

Conclusion

While we have covered some of the best open-source web servers, the list is by no means cast in stone. If you feel we have left one web server that should be featured in this list, give us a shout-out.

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James Kiarie

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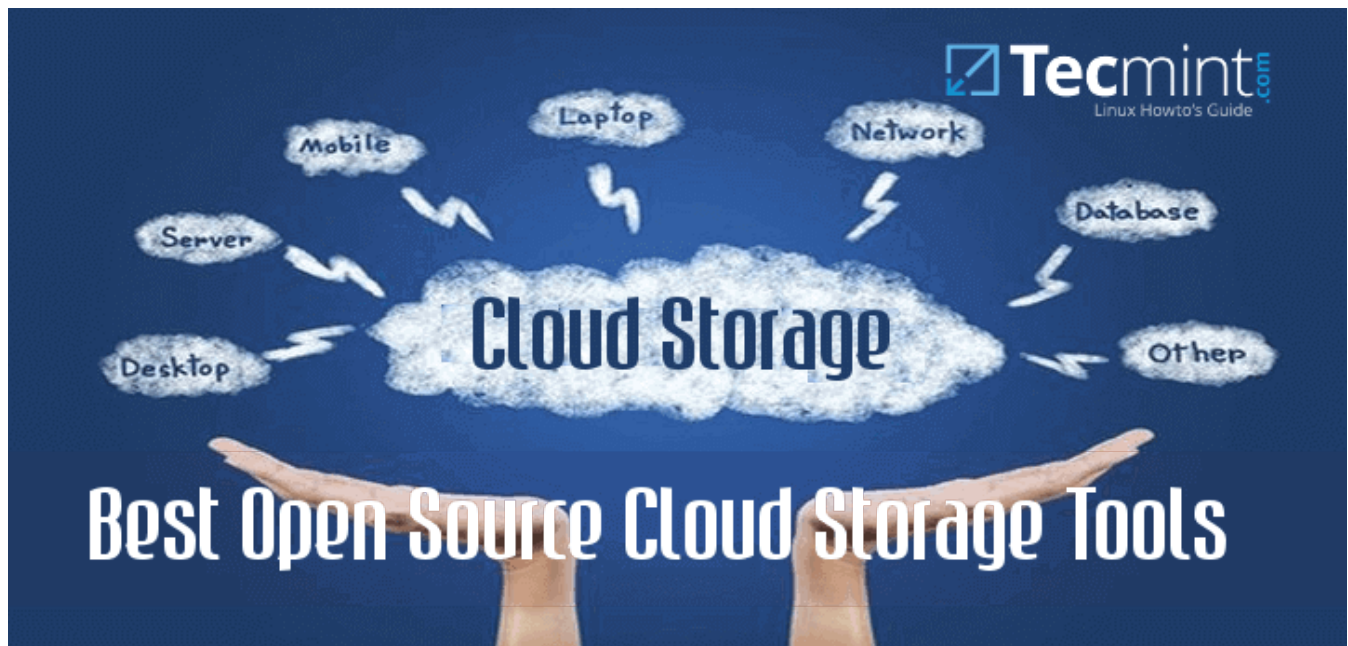
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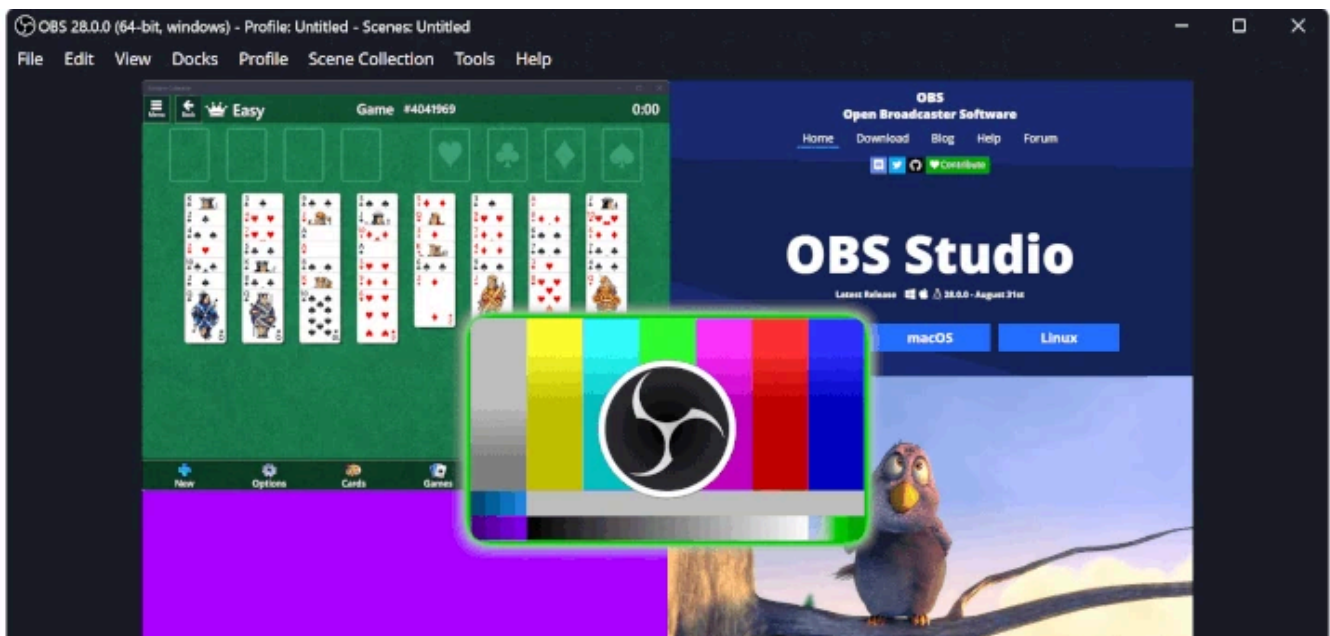

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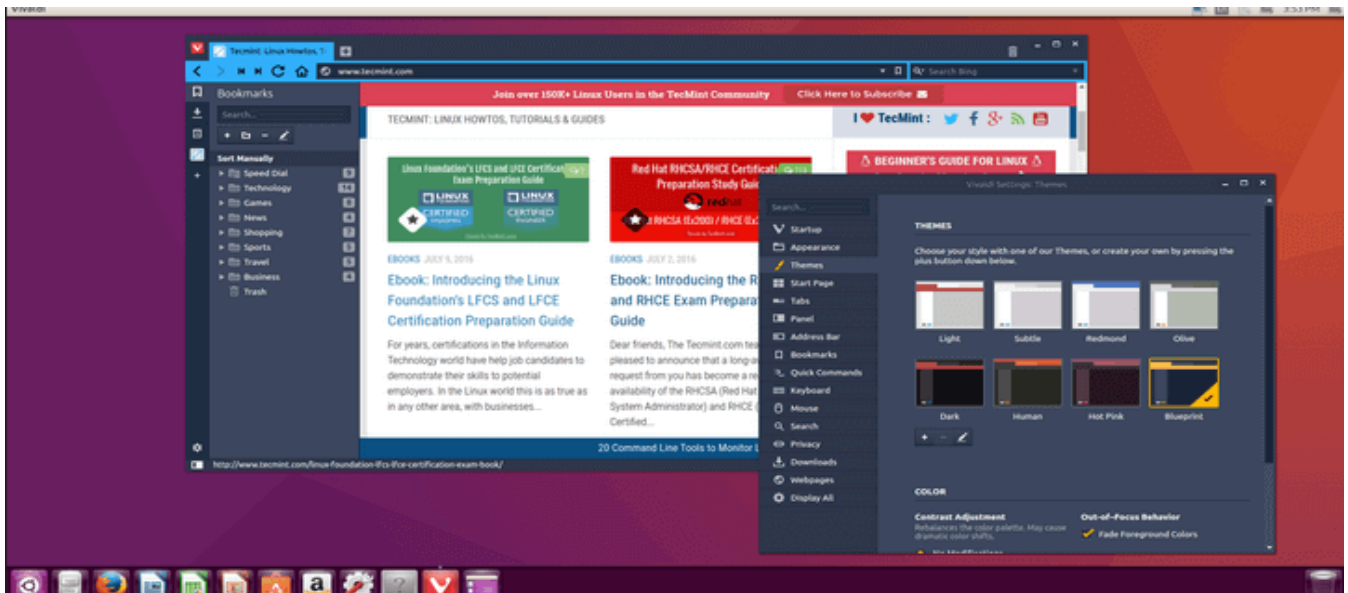
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28 Comments

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Jinkz

October 4, 2021 at 1:25 am

The fact IIS is not here, that's enough for me.

Thanks

Reply

James Kiarie
October 5, 2021 at 1:17 am

IIS is a closed source product by Microsoft. That explains why it didn't make it on the list.

Reply

Aleksandar Puharic
July 14, 2021 at 12:13 am

This is an article that serves as a disappointment for a website such as tecmint.

First of all, not all webservers are included, and then you add NodeJS as a webserver.

Reply

Admin

Ravi Saive
July 14, 2021 at 10:40 am

@Aleksandar,

Let me know which web server needs to be added to the list?

Reply

James Kiarie
July 14, 2021 at 12:48 pm

Aleksandar, while there are other web servers out there, we have highlighted 8 of the widely used web servers hence the title "The 8 best opensource web servers".

Reply

dragonmouth
November 3, 2023 at 5:23 pm

"Best" according to whom? Just because you fancy them, does not make them the "best".

Reply

Admin

Ravi Saive
November 4, 2023 at 9:28 am

@dragonmouth,

In the context of the article, a comment like "Best" can be subjective and dependent on individual preferences and requirements.

Reply

Supriyo Khan
December 25, 2020 at 10:22 am

Thank You Mr. James Kiarie.

Reply

James Kiarie
December 28, 2020 at 2:30 pm

You are most welcome Supriyo. Keep it Tecmint,

Reply

Heitor
July 29, 2020 at 5:59 pm

Please, don't forget Jetty.

Reply

HZ
July 29, 2020 at 6:29 am

NodeJS??? O.K. What about python's built-in HTTP server? (python3 -m http.server)

Reply

zen

July 29, 2020 at 5:13 pm

was going to post the same thing! many languages can run an http server, does not mean you should.

Reply

Max

July 28, 2020 at 11:31 am

Actually nginx and openlitespeed should be at the top because everything else is just old rubbish code which does not work or it is not maintained.

Reply

Pratyaksh Somani

July 28, 2020 at 12:34 am

Did you forgot openlitespeed?

Reply

Ravi Saive

July 28, 2020 at 10:41 am

@Pratyaksh,

We have included OpenLiteSpeed to the list...

Thanks

Reply

Maic Striepe

July 28, 2020 at 12:09 am

I think Hiawatha is worth mentioning, too. Small footprint and secure.

Reply

Ravi Saive

July 28, 2020 at 10:43 am

@Maic,

Thanks for the suggestion, will include the Hiawatha Web server to the list...

Reply

Admin

Ravi Saive

July 29, 2020 at 10:38 am

Hiawatha Web Server added to the list as recommended by you...

Reply

Brad

July 27, 2020 at 11:48 pm

I am shocked that litespeed has not been included on this list!

Reply

Admin

Ravi Saive

July 28, 2020 at 10:43 am

@Brad,

We have included the OpenLiteSpeed in the article...

Thanks

Reply

Alex

July 27, 2020 at 10:23 pm

Hello, I have Apache and Nginx from Plesk is that good? thanks

Reply

Ravi Saive

July 28, 2020 at 10:44 am

@Alex,

Yes, but you running both Apache and Nginx on the same Plesk server?

Reply

Xnnxhd

July 27, 2020 at 6:53 pm

How did OpenLiteSpeed miss on this list? It's in fact, the best with great support for FREE from developers even if one is not on LiteSpeed Enterprise (Their paid version).

You can even check benchmarks. LiteSpeed trashes out these web servers on the list. As such, most hosts are now providing LiteSpeed enterprise for people on managed hosting.
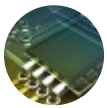
Reply

Ravi Saive

July 28, 2020 at 10:45 am

@Deewinc,

We have included the OpenLiteSpeed in the article as suggested by the majority of people in the comments…

Reply

eeintech
July 27, 2020 at 5:25 pm

What about Phusion Passenger?

Reply

VP
July 27, 2020 at 12:25 pm

I think OpenLiteSpeed also worth being on this list.

Reply

Ahmed
July 27, 2020 at 10:58 pm

Agree

Reply

Xnnxhd

July 28, 2020 at 10:46 am

Great.

With OpenLiteSpeed (OLS), you should add that they give you access to the CyberPanel control panel.

CyberPanel is robust, easy to use, and it's comparable to Plesk. When installing OLS, they give you the option to install CyberPanel and use it for free.

You should also check server benchmarks. LiteSpeed comes with dope accelerators that beat Nginx and Apache combined.

It should top this list.

Reply

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