



Web Technology and Services

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Overview of Web Technologies



Web Technologies

- Content Management Systems
- Server-side Languages
- Client-side Languages
- JavaScript Libraries
- Markup Languages
- Web Hosting
- Web Servers
- Operating Systems
- AWS
- Azure
- CDN Services



(CMS) Content Management Systems



Most Popular CMS

Most popular Content Management Systems among the top 1000



1. WordPress

2. Drupal

3. Joomla

4. Squarespace

5. Blogger



Joomla!®

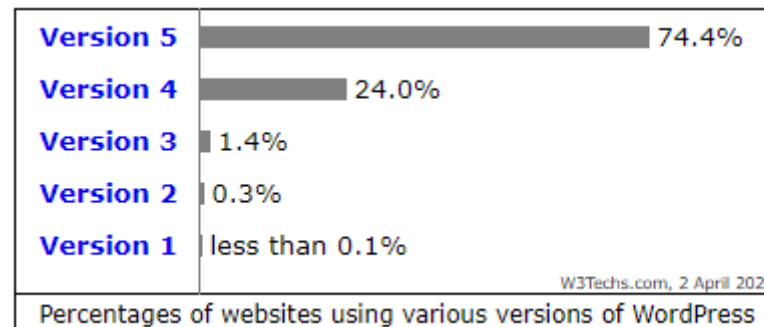




Popular sites using WordPress



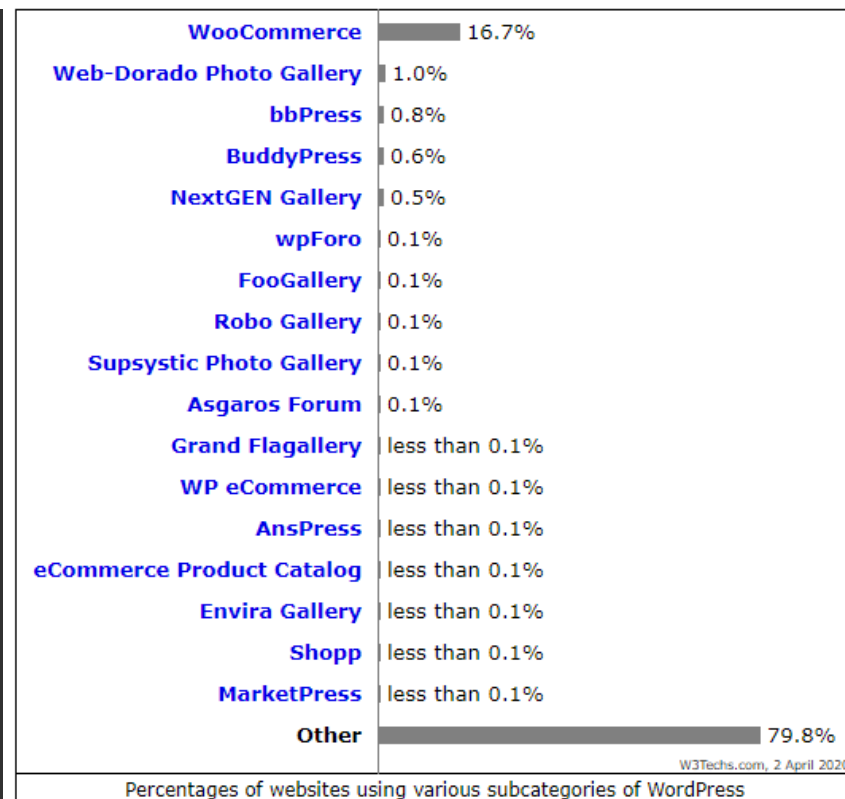
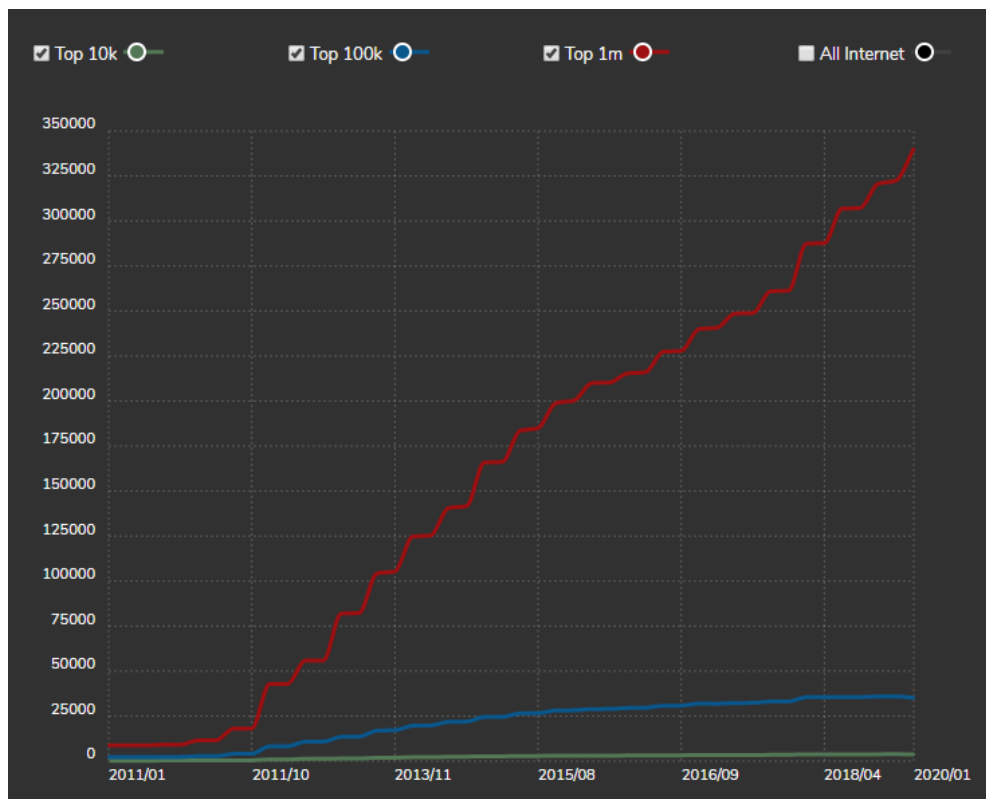
- Wordpress.com
- Freepik.com
- Shutterstock.com
- Intuit.com
- Godaddy.com
- Metropoles.com
- Chouftv.ma
- Geeksforgeeks.org
- Heavy.com
- Evernote.com





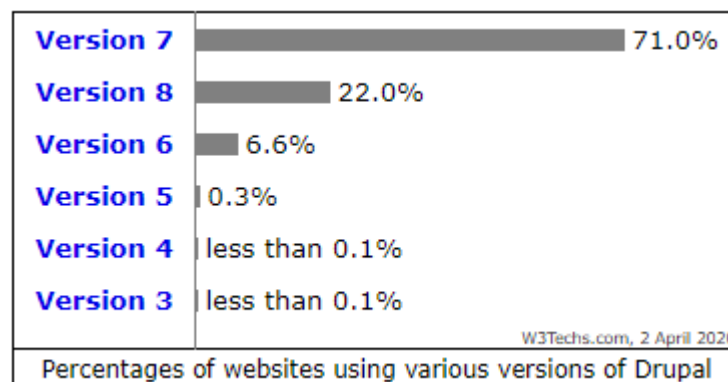
WordPress

- The most popular on the Entire Internet in Open Source category.
- The most popular in the United Kingdom in Open Source category.
- The most popular in the United States in Open Source category.



Popular sites using Drupal

- Instructure.com
- Nih.gov
- Pinterest.com
- Taboola.com
- Okta.com
- Patch.com
- Zoho.com
- Blackboard.com
- Irs.gov
- Indiatoday.in





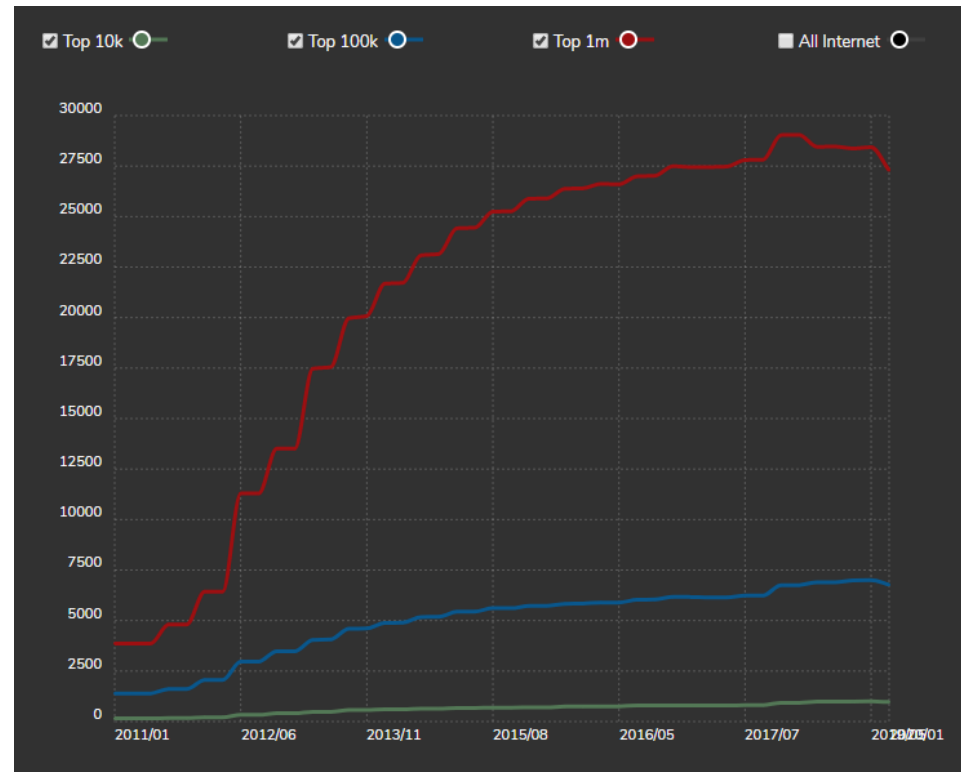
Drupal

Advantages:

- Focus on professional webmasters
- Security
- Free use and open source code.
- High speed

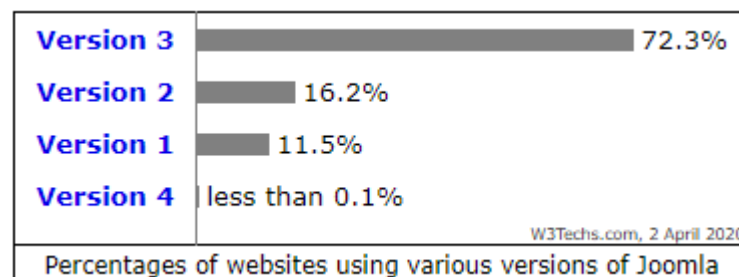
Disadvantages:

- The lack of high-quality designs in free access
- Security
- Advanced interface.
- The difficulty with familiarization.
- Difficulty in the installation of updates and program modules.



Popular sites using Joomla

- Beytoote.com
- Vseigru.net
- Dikaiologitika.gr
- Rappler.com
- Seemorgh.com
- Indiatyping.com
- Club-k.net
- Faberlic.com
- Extendoffice.com
- Gostaresh.news



Popular sites using MediaWiki

- Wikipedia.org
- Wikihow.com
- Wikimedia.org
- Wiktionary.org
- Wikibooks.org
- Wikisource.org
- Ballotpedia.org
- Ecured.cu
- Moegirl.org
- W3.org



Version 1	100.0%
W3Techs.com, 2 April 2020	
Percentages of websites using various versions of MediaWiki	

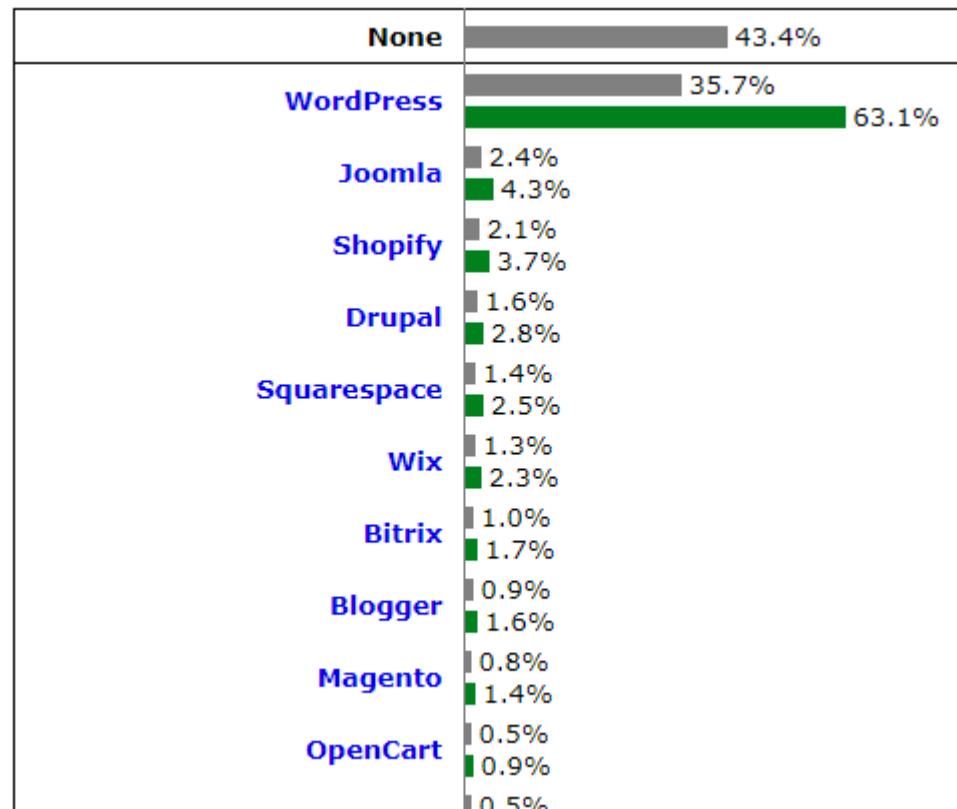


Content Management Systems

TOP 10

Percentages of websites using various content management systems.

WordPress is used by 35.7% of all the websites, that is a content management system market share of 63.1%.





CMS Common Features

- Search engine optimization
- Integrated and online documentation
- Modularity and extensibility
- User and group functionality
- Templating support for changing designs
- Installation and upgrade wizards
- Integrated audit logs
- Reduced need to code from scratch
- Unified user experience
- Version control
- Edit permission management



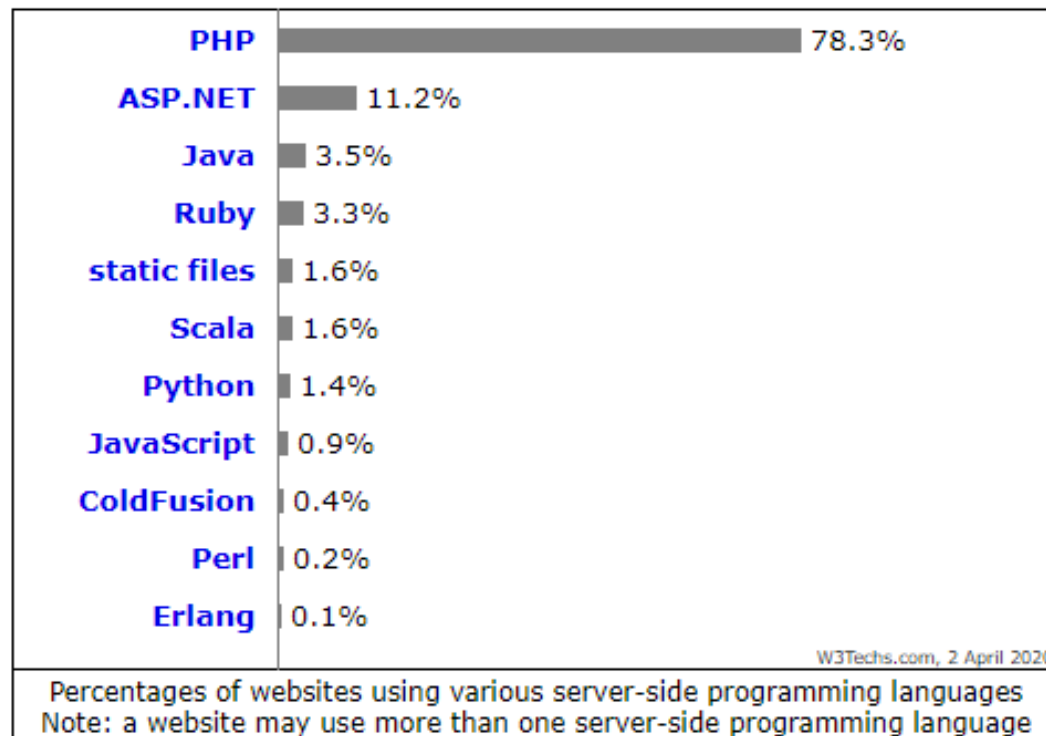
Server-side Languages



Server-side Languages

Usage of server-side programming languages for websites

PHP is used by 78.3% of all the websites whose server-side programming language we know.



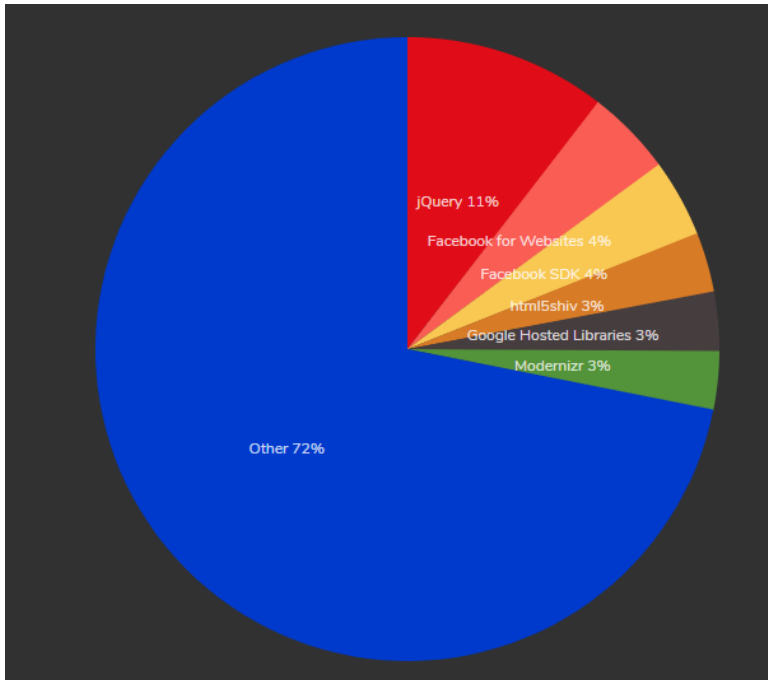


Client-side Languages



Client-side Languages

Usage of client-side programming languages for websites



None	5.4%
JavaScript	94.6%
Flash	2.7%

W3Techs.com, 2 April 2020

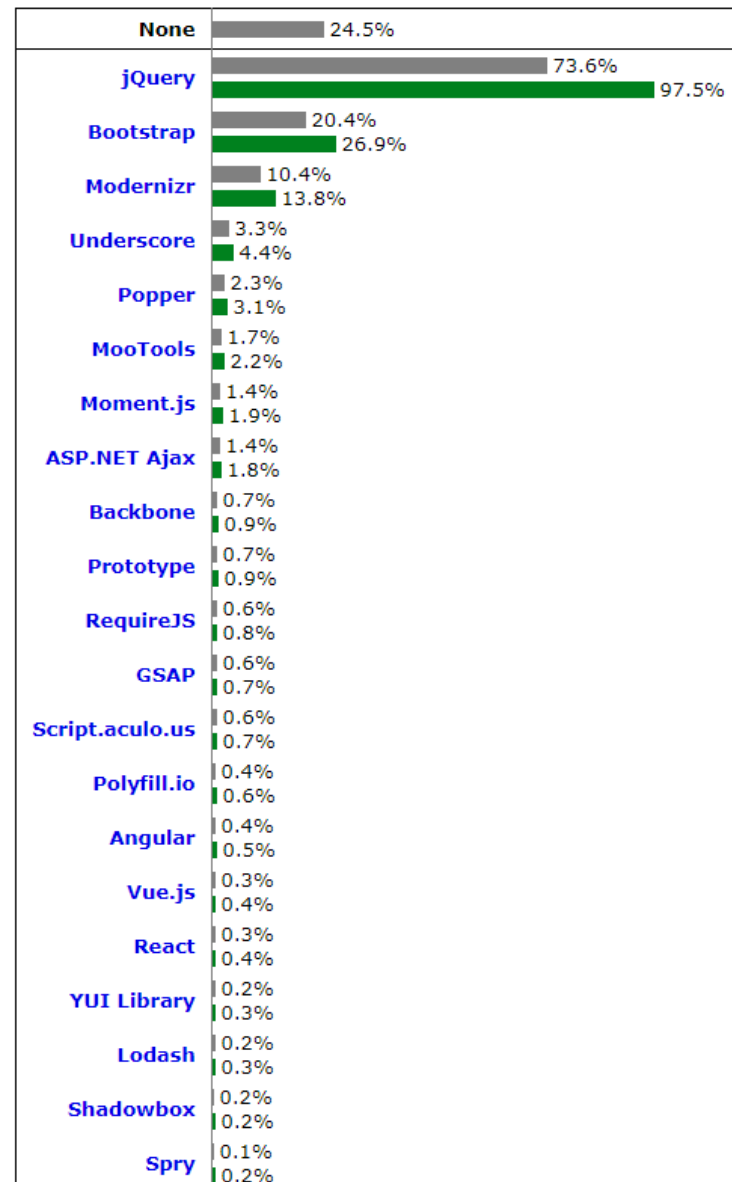
Percentages of websites using various client-side programming languages
Note: a website may use more than one client-side programming language



JavaScript Libraries

Usage of JavaScript libraries for websites

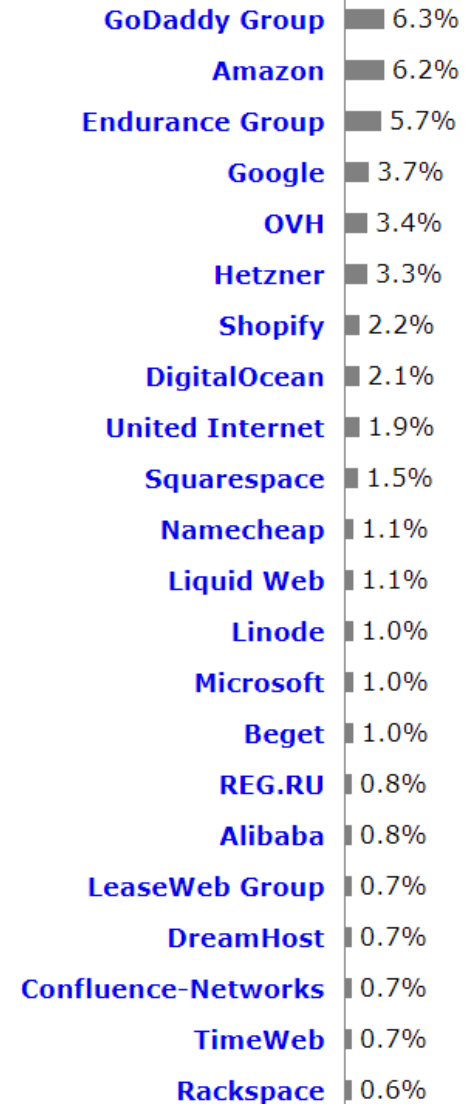
jQuery is used by 73.6% of all the websites, that is a JavaScript library market share of 97.5%.





Web Hosting

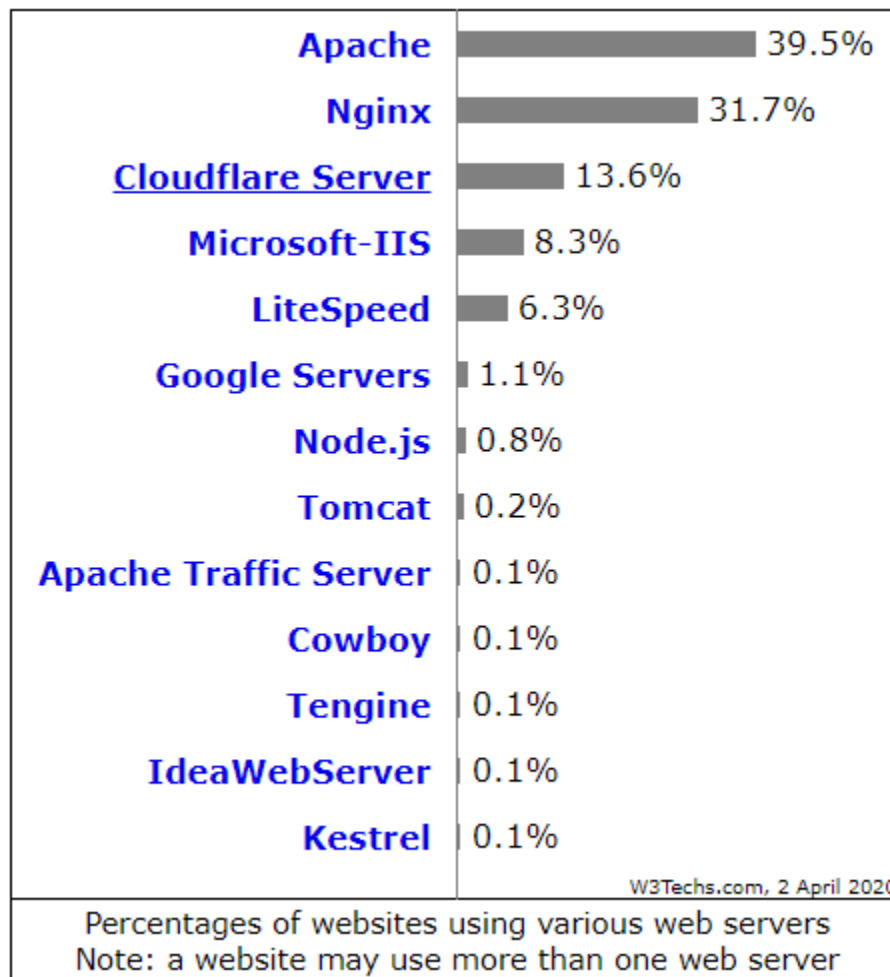
Usage of web hosting providers for websites





Web Servers

Usage of web servers for websites





Apache VS Nginx

Apache uses a process-driven approach and creates a new thread for each request.

Serves static content using the file-based method
Static content or files are typically files stored on disk on the server computer, for example, CSS files, JavaScripts files or images.

Apache handles static content using its conventional file-based method.

NGINX uses an event-driven architecture to handle multiple requests within one thread.

As Nginx's design architecture is better equipped to handle the load, it is much faster when it comes to serving the static content.

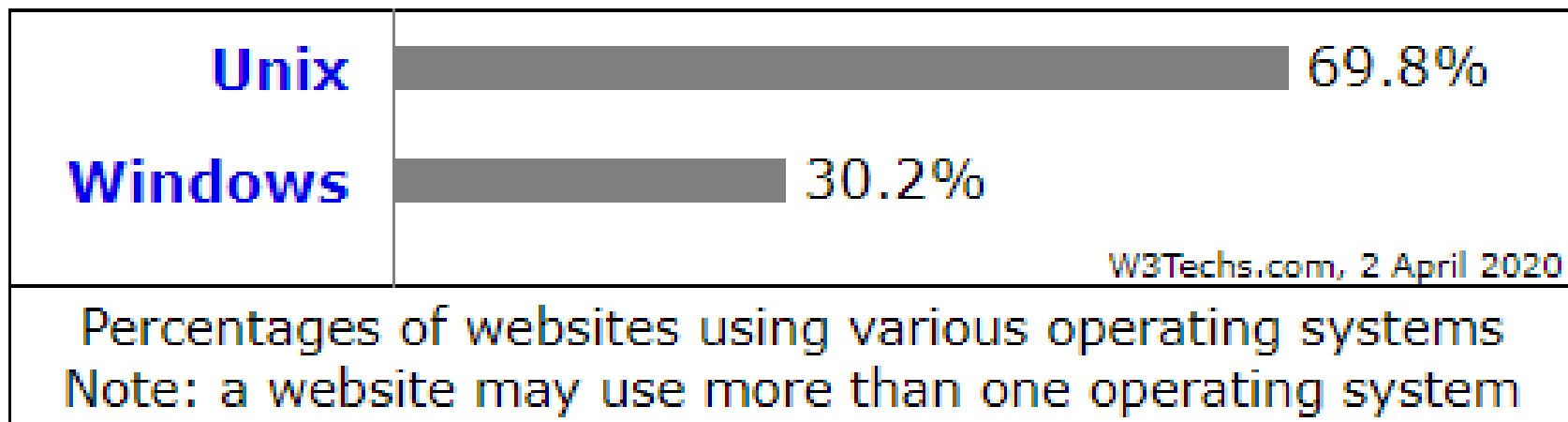
It performs 2.5 times faster than Apache according to a benchmark test running up to 1,000 simultaneous connections.

APACHE
10770 req/s
@ 512 PARALLEL REQUESTS

NGINX
20232 req/s
@ 512 PARALLEL REQUESTS



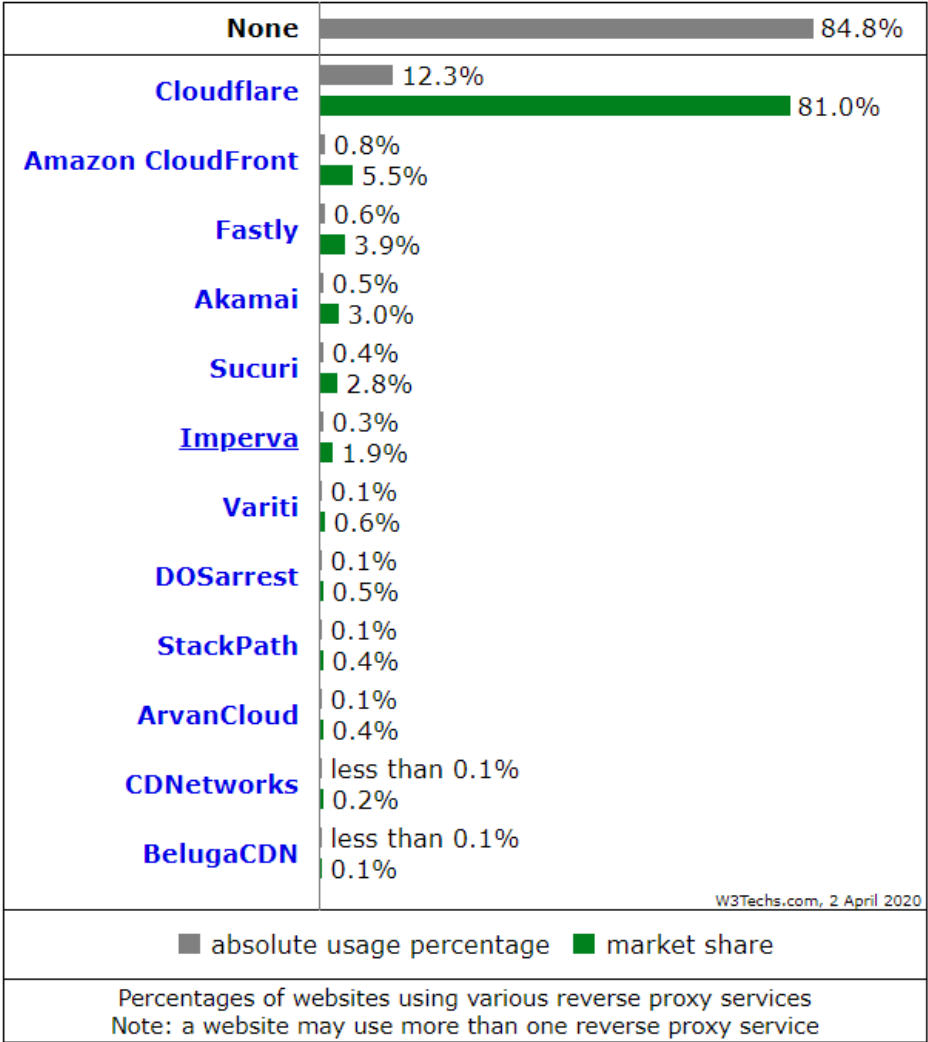
Usage of operating systems for websites





Reverse Proxies

Usage of reverse proxies for websites





CloudFlare

- Free
- Performance Improvement
- Save Hosting Bandwidth
- Spam Protection
- Accurate Site Analytics
- DNS Changes are faster
- Blocks DoS and DDoS
- Always Online
- Extra Layer Between User and Website
- False-positive
- Host Support for Cloudflare

When to use ?

Bottle-necked on bandwidth or have too much spam coming or have issues with DDoS or have problems with the site getting hacked too frequently!



Thank you for your attention!