Apache Software Foundation HTTP Server Project

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Preview

The Apache HTTP Server Project is an effort to develop and maintain an open-source HTTP server for modern operating systems including UNIX and Windows. The goal of the project is to provide a secure, efficient and extensible server that provides HTTP services in sync with current HTTP standards. While its lead has diminished over time, Apache has been the most popular Web server on the Internet since April 1996.

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Description

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The Apache HTTP (Web) Server Project is developed and maintained by the Apache Software Foundation as an open sourced Web server.

Developed in early 1995, the original version of the Web server consisted of changes in the code to the

HTTP server NCSA HTTP 1.3. It was later rewritten, and currently contains no NCSA code.

The offering has since evolved to surpass most UNIX-based HTTP servers in terms of both functionality and speed.

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Vendor

Name: Apache Software Foundation
Web: http://www.apache.org/
Type of Vendor: Free/Open-Source Software
Founded: 1999
Service Areas: Worldwide

On October 14, 2008, version 2.2.10 of the Apache HTTP Server was released. This version is principally a security and bug-fix release. It offers new features for smart filtering, caching, AJP proxy, proxy load-balancing, shutdown support, large file support, event MPM, and re-factored authentication and authorization.

Documentation Project

The Documentation Project is an effort to maintain and improve the quality of the documentation included with the Apache HTTP Server. It provides an open forum for programmers.

Test Project

Test Project focuses on designing tools for the HTTP Server Project. The following components are available:

- **Flood**--Profile-driven HTTP load tester.
- **Perl Framework**--Perl-centric HTTP test kit.
- **Apache-Test**--Test engine behind the Perl framework and other HTTP-based projects such as mod_perl.
- **specweb99**--Modules for specweb99 tests.

Request Library

libapreq is a shared library with associated modules for manipulating client request data using the Apache API. It includes language bindings for Perl, and can parse application, multipart and form-data, and HTTP cookies.

Multiprocessing Modules

The HTTP Server features a number of multiprocessing modules (MPM), including:

- **mpm_common--**A collection of directives that are implemented by more than one MPM.
- **beos--**A multi processing module optimized for BeOS.
- **leader--**An experimental variant of the standard worker MPM.
- **mpm_netware--**A multi-processing module implementing an exclusively threaded Web server

optimized for Novell NetWare.
- **mpmt_os2--**A hybrid multi-process, multi-threaded MPM for OS/2.
- **perchild--**For daemon processes, which serves requests to be assigned a variety of different user ids.
- **prefork--**Implements a non threaded, pre forking Web server.
- **threadpool--**An experimental variant of the standard worker MPM.
- **mpm_winnt--**A MPM optimized for Windows NT.
- **worker--**A MPM that implements a hybrid multi-threaded multi-process Web server.

Additional Modules

Other core modules for the Apache HTTP Server are:

- **mod_access--**Provides access control based on client hostname, IP address, or other characteristics of the client request.
- **mod_actions--**For executing CGI scripts, based on media type or request method.
- **mod_alias--**Provides for mapping different parts of the host file system in the document tree and for URL redirection.
- **mod_asis--**Sends files containing their own HTTP headers.
- **mod_auth--**For features that uses text files.
- **mod_auth_anon--**Allows "anonymous" user access to authenticated areas.
- **mod_auth_ldap--**Allows an LDAP directory to be used to store the data base for HTTP Basic authentication.
- **mod_dav--**Offers Distributed Authoring and Versioning (WebDAV) functionality.
- **mod_isapi--**Provides ISAPI Extensions within Apache for Windows.
- **mod_nw_ssl--**Enables SSL encryption for NetWare.
- **mod_proxy--**HTTP/1.1 proxy/gateway server module.
- **mod_proxy_http--**HTTP support module for mod_proxy.
- **mod_speling--**Helps correct mistaken URLs that users might have entered by ignoring capitalization and by allowing up to one misspelling.
- **mod_ssl--**For cryptography, using the Secure Sockets Layer (SSL) and Transport Layer Security (TLS) protocols.
- **mod_suexec--**Allows CGI scripts to run as a specified user and Group.
- **mod_userdir--**Provides for user specific directories.
- **mod_usertrack--**A module for *Clickstream* logging of user activity on a site.
- **mod_vhost_alias--**For dynamically configured mass virtual hosting.

Applications

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The HTTP Server Project can help create commercial-grade HTTP Web server. It can be used by organizations of virtually any size.

Environment

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Part of the HTTP Server's popularity is due to its redistribution as part of various proprietary offerings, including Oracle and IBM's WebSphere application server, while its popularity with Web-hosting companies and ISPs has also backed its presence in the market. Apache's HTTP Server Project is designed for use alongside most applications and software products, and supports Microsoft Windows Vista, XP, 2003, and 2000, as well as assorted UNIX and Linux platforms. It is available for Novell SUSE Linux and NetWare, and Apple's Mac OS X.

Support

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Because it has millions of users and includes only volunteer developers, Apache does not provide personal product support. It does, however, offer some free support through a user forum and FAQ section. Support is also available through several companies and consultancies, among them: Aeonxe Technology, Applios, C3Net Europe, Covalent Technologies, Hewlett-Packard, LINUXHAUS, Mind nv, Plover Systems, Raz Information Systems, Red Hat, Spacestar Communications, Tenon Intersystems, Trytel Internet, and UVNET.

Pricing

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The Apache HTTP Server is freely available for download under the Apache License. It can be downloaded directly from the Apache Software Foundation's HTTP Server download site.

Competitors

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The closest thing the Appache offering has to a competitor is Microsoft, which offers Windows Server 2008. Other lesser competitors include: Sun's Java System Web Server, the JBoss Application Server, Oracle Database 11g, Red Hat's Application Server, and the Zeus Web Server.

Web Links

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Appache Software Foundation: http://www.apache.org/
IBM: http://www.ibm.com/

JBoss: http://www.jboss.org/
Microsoft: http://www.microsoft.com/
Oracle: http://www.oracle.com/
Red Hat: http://www.redhat.com/
Sun Microsystems: http://www.sun.com/
Zeus Technology: http://www.zeus.com/

About the Author

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Brady Hicks is an editor with Faulkner Information Services. He tracks and writes about storage, server, and networking technologies and vendors.

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