

FreeBSD Technologies in New Firefox 3 Browser

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Boulder, CO ([PRWeb](#)) June 23, 2008 -- Mozilla this week released the highly anticipated Firefox 3 browser. The FreeBSD Project congratulates the Mozilla project on a multi-year effort that culminated in a product that is both faster and more secure than its predecessors, with innovative new features. Several important features of the Firefox browser were incorporated from technologies adopted from the FreeBSD project. Technology from the FreeBSD project has a long history of being used inside other open source projects such as Firefox.

One of the FreeBSD technologies used by Firefox 3 is the new memory allocator, "jemalloc", which was written by FreeBSD developer Jason Evans for the FreeBSD 7 operating system. jemalloc is a fast, efficient memory allocator with excellent performance on multiprocessor machines. Though already a part of the FreeBSD 7 operating system, the Mozilla project has chosen to also incorporate it directly inside the Firefox 3 browser to improve memory performance and reduce memory use on other operating systems with legacy memory allocators.

According to the blog of Firefox developer Stuart Parmenter, "Our automated tests on Windows Vista showed a 22% drop in memory usage when we turned jemalloc on." Commenting on the Linux version of the browser, he wrote, "We saw a good performance increase and a drop in memory."

Another FreeBSD technology used by Firefox is the "bsdiff" binary patch system written by Colin Percival as part of the FreeBSD Update mechanism for updating the FreeBSD operating system. By using bsdiff, Firefox is able to dramatically reduce the size of its software updates, meaning faster downloads for end users. In addition to being used by FreeBSD and Firefox, bsdiff is used by Apple to distribute updates to the OS X operating system.

The FreeBSD operating system is supporting Firefox in other ways, too. FreeBSD was integral in delivering Firefox software into the hands of users through its association with the Internet Systems Consortium (ISC), which operates one of the Mozilla project's primary download mirrors, mozilla.isc.org.

ISC is a long-time supporter of the FreeBSD project, and FreeBSD 7 powers the mirror that withstood a sustained download rate of a gigabit per second, during peak download periods throughout Firefox's world record breaking "Download Day."

"ISC saw four times the normal volume of downloads from the mozilla.isc.org site during Download Day," said Peter Loshier, Hosted@ISC Programme manager. "As usual, FreeBSD proved to be a rock-solid platform enabling us to deliver content without incident."

About the FreeBSD Project:

Building on a 30 year development history, the FreeBSD operating system is descended from the pioneering code upon which much of the Internet and modern computing was founded. It continues to be actively developed, with world-class stability, performance and modern features not available in other operating systems, even some of the best commercial ones.

FreeBSD technology can be found throughout the IT industry, providing key components of Apple's OS X, network infrastructure from Juniper, Nokia, IronPort and other vendors, storage appliances from NetApp and Isilon, and even appearing from time to time in Microsoft Windows, among many other products.

The FreeBSD operating system is freely available under the BSD license, a business-friendly open source license that encourages code reuse and adoption within both open-source and proprietary products. Our mission is to provide world-class operating system code and technologies to all users for use in their own systems, regardless of their eventual disposition.

By choosing to build their products on top of FreeBSD source code, companies remain in control of deciding when and how their changes should be contributed back to the community. However, our developers are ready to work with companies and projects who make use of FreeBSD source code, and many companies have found that engaging with the open source community helps to reduce their integration and maintenance costs.

For more information about the FreeBSD operating system, please visit <http://www.freebsd.org/>, where the operating system is also available free for download or for purchase on CD or DVD through our partner organizations.

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720-207-5142

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