

The series that focuses on why

Why Choose 64-bit?

3 Reasons to Upgrade Your Firewall

Overview

In 2017, Netgate announced that pfSense software 2.4 would deprecate support for 32-bit Intel/AMD hardware and NanoBSD Installations. Version 2.3.5 still supports 32-bit Intel/AMD and NanoBSD, and that version has been maintained for a year after the release of 2.4, to include security fixes. The 2.3 series of pfSense software, along with FreeBSD 10, upon which is based, will both [End-of-Life at the end of October 2018](#).

If you read no further, please leave with this thought: If your firewall platform is based on 32-bit Intel or AMD hardware, **it is time to upgrade**.

1. Vulnerability Fixes

During the last year as Netgate has maintained both the 2.3.x and 2.4.x branches of pfSense software, there have been a number identified vulnerabilities. Some of these were addressed in the 2.3.5 release, while others could not be. Some vulnerabilities were at a chip level and need to be mitigated in the operating system kernel. Specifically, the mitigations for the four identified [Speculative Execution Vulnerabilities](#) commonly known as Meltdown and Spectre, have not been released by FreeBSD (our upstream project) for FreeBSD 10.

Sometimes, the decision is made not to create fixes for outdated 32-bit system. The effort and expense are too much for the limited return on investment. As you can see at the link above, this decision has also been taken by the FreeBSD project.

2. Updates

Firewall software is only relevant if it's up to date. But aside from the vulnerability fixes that come from the updates, there are also usability and performance enhancements that improve the overall user experience. Our pfSense software isn't just flat code that performs packet filtering. It's a multi-dimensional software platform that has great native functionality and integrates with other great open-source packages to provide a feature-rich security defense that is constantly improving with each release.

If you aren't getting the updates, then you're missing out on any future improvements to the software itself.

3. Speed & Efficiency

There is no doubt that 64-bit hardware running 64-bit software is faster and more efficient than a 32-bit system. Perhaps your 32-bit router/firewall is fast enough for your available bandwidth, but there are other reasons to upgrade. Modern, headless routers/firewalls, like those offered by Netgate, are low-power consumption systems based on new silicon processes and geometries that run cooler and are more efficient than their 32-bit ancestors. Lower power consumption means less electricity usage and less air conditioning to remove the heat generated by a less efficient system. These savings could amount to several dollars per month. Over time, the lower energy systems can actually pay for themselves in savings.

Conclusion

Upgrading your firewall/router can take a little time and effort. Often, it's easier to just leave your old system in place because it's working well enough. At Netgate, we take network security seriously, as will any outside parties who might attempt to exploit the vulnerabilities that you've left open in an outdated system. Put bluntly, sometimes good enough isn't really good enough.

We hope that this has captured your attention and that you will consider your upgrade options. Please consult the pfSense Book for information on [upgrading an existing installation](#) to ensure your upgrade goes smoothly.

About Netgate

Netgate, the open-source secure networking company, delivers superior value firewall, VPN, and routing solutions. With over 1 million active pfSense installations – businesses, educational institutions, and government agencies around the world depend on Netgate for cloud or premises, enterprise ready, secure networking solutions.

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