FreeBSD FOUNDATION

Dedicated to supporting the FreeBSD Project and community

Upcoming Events

BSDCan 2018 FreeBSD Developers Summit
June 6-7 , 2018
Ottawa, Ontario, Canada

BSDCan 2018
June 6-9, 2018
Ottawa, Ontario, Canada

USENIX ATC 2018
July 11-13, 2018
Boston, MA

OSCON 2018
July 16-19, 2018
Portland, OR

FreeBSD Journal

The March/April issue of the *FreeBSD Journal* is now available. Don't miss articles on Illuminating the Desktop Paradigm, ZFS 2018 and Onward, and more!

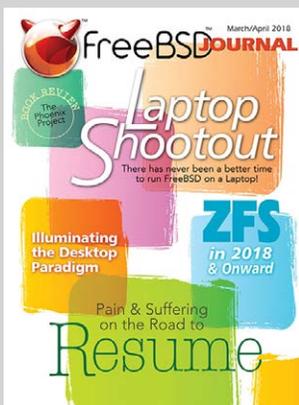**New Feature!** Browser-Based subscribers now have the ability to download and share PDFs of the articles!

Message from the Executive Director

Dear FreeBSD Community Member,
Welcome to our May Newsletter! As I reflect over the past month, I'm proud of the work we've done to improve FreeBSD. In this newsletter we'll highlight some of our accomplishments: including: adding work-arounds for more security issues, continuing to lead the FreeBSD 11.2 release efforts, visiting some organizations in Oregon, and adding new team members to work on improving testing, automation, and continuous integration for the Project, as well as, adding an administration manager for the Foundation.

Take a moment to read about our work and see what events are coming up!

Deb

May 2018 Development Projects Update

Improving FreeBSD Continuous Integration, Testing and Quality Assurance

I am very happy to announce that Li-Wen Hsu has joined the FreeBSD Foundation to allow us to significantly increase the support we can provide for continuous integration and ongoing testing and quality assurance in FreeBSD. Li-Wen has maintained the FreeBSD project's continuous integration system at https://ci.freebsd.org/ for some time, and will now be able to work full-time on improving the quality of FreeBSD and the software engineering processes used to build FreeBSD.

Li-Wen will work on a number of different topics, and I'll highlight some of them here.

Continuous Integration

Why Choose FreeBSD?

Our primary focus will be on improving FreeBSD's own Jenkins continuous integration system, starting with some simple and straightforward improvements such as ensuring build and other job failure notifications are being delivered directly to the developers able to address failures. We'll also ensure build and test jobs are running for all of FreeBSD's supported architectures and branches. Better integration of unit and system tests (in both virtual machines and on real hardware) is also planned.

Hardware Test Lab
FreeBSD has long supported 32- and 64-bit x86 CPUs (i386 and amd64 in FreeBSD terminology) as Tier-1 architectures. Support for a large variety of Arm devices is more recent, and is moving towards Tier-1 status as well. We are going to build a hardware test lab, integrated into the Continuous Integration system, to perform full system testing on many different hardware devices. The system will also allow hardware to be shared between CI and developers, allowing hardware to primarily serve developer needs but also be used for testing when it is otherwise not needed.

Developer Tools
One of the goals in Continuous Integration and automation improvements is to allow much more testing and validation to happen prior to work being committed to the tree. For example, a patch posted to our Phabricator code review tool could be automatically build- and run-tested.

We also expect to look at other testing approaches, including guided fuzzing, as well as automated performance testing and benchmarking. The primary target for this work is the support of these services within the FreeBSD context, but we intend to design and document everything so that it can be used as a "template" for all downstream consumers of FreeBSD to replicate in their own environment.

Please join me in welcoming Li-Wen to the FreeBSD Foundation team!

-- contributed by Ed Maste

Fundraising Update: Supporting Critical Functions

May was a busy month supporting the Project, with most of our resources focused on work-arounds for CPU vulnerabilities, face-to-face meetings with partners like Intel and Oregon State University Open Source Labs, overseeing the 11.2 release efforts, and creating more FreeBSD educational material.

We need to continue supporting these critical functions, but also recognize there are other areas in the Project that need our support. To that end, we will allocate resources to those areas, including: the recent addition of a full-time person to improve

continuous integration, automated testing, and quality assurance; bringing on another software developer to allow us to increase our ability to jump in and accelerate improvements to FreeBSD, and supporting more hands-on learning FreeBSD opportunities to recruit more people to the Project.

I'm excited about our plans and ability to increase our contributions to FreeBSD in these critical areas, but we can't do this without your support. We are almost to the halfway point of the year, and have only raised $190,000, towards our spending budget of $1,250,000.

Please support our efforts if you or your company depend on:

- Stable and reliable releases

- A proactive and responsive security team

- Software developers available to quickly jump on critical issues and get workarounds and/or fixes into the tree

- Increased testing coverage, more automation, and improved developer tools

- A growing number of FreeBSD contributors to recruit for job openings and support improvements to the Project

- Software development projects that are funded and managed by the Foundation

We need your support to continue our efforts. If you are a corporation, please consider becoming a partner. You can find more information about this program [here](#).

Please consider [making a donation](#) today, and help us continue our work supporting FreeBSD!

-- contributed by Deb Goodkin

Foundation Team Changes

As you've read in Ed's article, we added Li-Wen to our staff to focus on improvements in the overall quality assurance, automated testing and continuous integration of FreeBSD. We are so excited to have him as part of our team, to continue our efforts to improve FreeBSD!

We have some other sad and exciting changes. Many of you have had interactions with our Administration Manager, Sabine Percarpio. For over two years, she was our frontline to the community. Most of you probably weren't aware that she was originally a lawyer in Germany. Unfortunately for us, she wanted to get back into the legal field, and found a wonderful opportunity. We are sad to say goodbye to Sabine, but we fortunately found someone quickly to fill her shoes.

Please welcome Loren Gurkowski, our new Administration Manager. Loren is currently working towards her master's degree in Social Work from Simmons College in Boston. She will be working for us full-time in the summer, and will hopefully continue working part-time while

embarking on some internships. Some of you have already met Loren as she helped staff the Foundation table at previous EuroBSDCons.

- contributed by Deb Goodkin

Guest Blog Post: What I Learned During My FreeBSD Internship

Hi, my name is Mitchell Horne. I am a computer engineering student at the University of Waterloo, currently in my third year of studies, and fortunate to have been one of the FreeBSD Foundation's co-op students this past term (January to April). During this time I worked under Ed Maste, in the Foundation's small Kitchener office, along with another co-op student Arshan Khanifar. My term has now come to an end, and so I'd like to share a little bit about my experience as a newcomer to FreeBSD and open-source development. Read more...

-- contributed by Mitchell Horne

May 2018 Release Engineering Update

The FreeBSD Release Engineering team continued working on the upcoming 11.2-RELEASE, with the most recent test build being 11.2-BETA3. The next test build, 11.2-RC1, is currently scheduled to begin June 1 after the stable/11 branch is copied to the new releng/11.2 branch, where development on 11.2 will continue for the duration of the release cycle.

Throughout the month of May, the code freeze on the stable/11 branch had started, followed by three BETA test builds. At present, 11.2-RELEASE is progressing on schedule.

The full schedule for 11.2-RELEASE is available here.

- contributed by Glen Barber

Help Us Build a FreeBSD Timeline!

Calling all FreeBSD fans! Not only is June 19, FreeBSD Day, but this year it marks the 25th Anniversary of the FreeBSD Project. To help celebrate, the Foundation is putting together a Project timeline and we need your help. Do you have a "FreeBSD First"? Fill out the form or send us an email with the name and date of the milestone. Milestones can be related to you or your company's first involvement in the community, or the first instance of a new feature or event related to FreeBSD.

Milestones are due by June 8.

Spread the word and help us build the FreeBSD 25th Anniversary timeline!

-- contributed by Anne Dickison

Conference Recap: Rootconf 2018

The FreeBSD Foundation sponsored [Rootconf 2018](#) in Bangalore. Rootconf is India's renowned conference on DevOps and IT Infrastructure. I solicited the help of two local contributors -- Santhosh Raju and Dhananjay Balan -- to staff our booth. The three of us handed out hundreds of stickers, pens and flyers to a very interested audience. We also had dozens of often quite in-depth conversations with conference attendees. While we couldn't cure Bangalore's startup culture of their Linux problem overnight, several local companies will at least give FreeBSD a closer look. In the (very few) idle moments during the conference, we discussed the possibility of organising hackathons or mini developer summits for the local community. I will try to help make some things happen in the coming months.

- contributed by Philip Paeps