

# FreeBSD Foundation April-June 2017 Update



Dedicated to supporting the  
FreeBSD Project and community

## Upcoming Events

### [Essen Hackathon and DevSummit](#)

July 7-9, 2017  
Essen, Germany

### [USENIX ATC '17](#)

July 12-14, 2017  
Santa Clara, CA

### [BSDCam 2017](#)

August 2-4, 2017  
Cambridge, UK

### [vBSDcon DevSummit](#)

September 7, 2017  
Reston, VA

### [vBSDcon 2017](#)

September 8-9, 2017  
Reston, VA

### [SNIA SDC 2017](#)

September 11-14, 2017  
Santa Clara, CA

### [September 2017 FreeBSD DevSummit](#)

September 21-22, 2017  
Paris, France

### [EuroBSDcon 2017](#)

September 21-24, 2017  
Paris, France

## FreeBSD Journal



## Message from the Executive Director

Dear FreeBSD Community Member,

As we head full steam into summer, it's hard to believe that we are already done with the second quarter of 2017. These last 3 months have been even busier than the first three. We've attended conferences around the world, launched a new partnership program, brought on interns, and even celebrated the newly declared FreeBSD Day! Take a minute to see what we've been up to and what's coming in the next few months. We could not begin to do this without you. Thank you for your continued support of FreeBSD!

Deb

## Q2 Development Projects Summary

The hard work continues into the 2nd quarter on 2017. Please take a look at the highlights from our more recent Development Projects summaries.



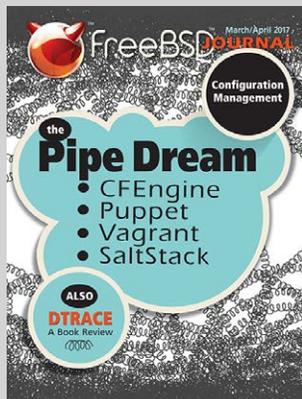
### April: FreeBSD USB Mass Storage Target Project Update

The Foundation awarded a project grant to Edward Tomasz Napierala to develop a USB mass storage target driver, using the FreeBSD CAM Target Layer (CTL) as a backend. This project allows FreeBSD running on an embedded platform, such as a BeagleBone Black or Raspberry Pi Zero, to emulate a USB mass storage target, commonly known as a USB flash stick. [Read more...](#)

### May: Foundation Brings on Co-Op Students

At the beginning of May we embarked on a new path in the FreeBSD Foundation, with the hiring of co-operative education (co-op) students from the University of Waterloo. The University of Waterloo is a pioneer and leader in co-operative education, with 100% of Engineering students and a majority of Computer Science students participating in co-op programs. [Read more...](#)

The [May/June 2017 Issue of the FreeBSD Journal](#) is now available. Don't miss articles on FreeBSD's Firewall Feast, CADETS: Blending Tracing and Security on FreeBSD, Toward Oblivious Sandboxing with Capsicum, and more.



Did you miss the [March/April issue](#)? Check out articles on CFEngine, Puppet on FreeBSD, Vagrant, and more!

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

**Sample Issue!** If you've ever wanted to read through an entire issue of the FreeBSD Journal, now's your chance. [Download](#) the sample issue and be sure to share with your friends and colleagues.

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See what others are saying about the Journal:

"Awesome! This is the best way to popularize FreeBSD!!" San Jose, California

"I've found it really practical, and great reading...it caters to all levels of users." Brooklyn, NY

## Why Choose FreeBSD?



"XipLink specializes in optimizing wireless links, WANs, or any network that experiences high latency, asymmetric allocation or high bit error rates. XipLink's solutions are seen mainly

## June: FreeBSD Foundation 2017 Project Proposal Solicitation

One of the ways the Foundation supports FreeBSD is by providing development grants for work on individual projects. These allow developers to propose projects they would like to undertake to improve FreeBSD, and request funding to perform that work. The Foundation is always willing to receive proposals, but will occasionally issue a call for proposals to highlight specific areas of focus and to be able to collect and evaluate a group of proposals.

The Foundation now has a call for project proposals open, for work related to any of the major subsystems or infrastructure within the FreeBSD operating system. The proposal deadline is July 14, 2017, and accepted proposals will be announced in August.

Although proposals may address any FreeBSD subsystem or infrastructure, we are particularly interested in receiving proposals related to:

- Improvements to the security of FreeBSD itself, or of applications running on FreeBSD.
- New test cases, improved test infrastructure, and quality assurance.
- Improved software development tools.
- Projects to improve community collaboration and communication.
- Improving the FreeBSD "out of the box" experience for new users on various hardware platforms.
- Establishing FreeBSD as a leader in advancing projects of shared interest (such as ZFS, LLVM, or libarchive).

More details can be found [here](#), including the full [project proposal submission guidelines](#). Please do not hesitate to contact [proposals@freebsd.foundation.org](mailto:proposals@freebsd.foundation.org) with any questions.

-- contributed by Ed Maste

## Announcing New Partnership Program



I'm excited to announce our new FreeBSD Foundation Partnership Program! Our work is 100% supported by donations from individuals and organizations. With a spending budget of \$1,500,000, we rely on large donations from our commercial users to help us sustain and increase our support. Recognizing the value of these donations, and putting together a sustainable funding model, we wanted to

institute benefits that highlighted this support, and recognize these donors in productive ways. Partnerships are an avenue to assist commercial users by helping them get on board more quickly with FreeBSD, share their needs with the community, and facilitate collaboration with FreeBSD developers. We believe building these relationships with commercial users will contribute to keeping FreeBSD relevant and a sustainable and healthy ecosystem.

in satellite networks, aviation, military, government and maritime systems.

Due to the broad range of our solutions, we need to provide software and hardware that can optimize several hundreds of thousands of users sessions simultaneously. For this we need the most stable, efficient, supported and well documented network stack available, which we can also modify to our hearts' content.

FreeBSD has been providing just that to XipLink since release 4.5. It made our first implementation of the Space Communication Protocol Standard a lot easier with its friendly BSD licensing model for kernel code, as well as, with the tremendous amount of documentation available on its network stack (especially the TCP/IP Illustrated Series by Wright and Stevens).

Since then, things have steadily improved. System reliability, performance, extensive code reviews and attention to detail permeate the entire source tree, making FreeBSD the perfect environment for our continuously evolving and increasing feature set.

XipLink is proud to support FreeBSD, by sponsoring FreeBSD developers, submitting patches and features, or simply through subscriptions to the FreeBSD Journal and donations to the Foundation.."

— Karim Fodil-Lemelin, Vice President of Engineering, [XipLink Inc.](#)

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You can check out our updated [donor pages](#) to see how we are acknowledging our Partners. You can also find out more about this new program [here](#).

When I was in China last week, I had a chance to talk to a few companies about our new partnership program, and it definitely generated more interest in supporting our efforts.

We are continuing to reach out to commercial users for help that will enable us to provide more outreach and support for FreeBSD. This includes funding more projects to improve FreeBSD, providing FreeBSD education and training, and recruiting more contributors to the Project. We can only provide the above support with your donations. We need your help to connect us with your companies. Please consider sharing our new Partnership Program with your organization and help connect us with the appropriate contacts at your company.

Your donations will help us:

- Accelerate improvements and add new features to FreeBSD
- Support release engineering efforts full-time
- Create and provide FreeBSD educational and training material
- Provide face-to-face opportunities for developers to work together
- Improve and support FreeBSD infrastructure

We need your support to continue improving FreeBSD. You can help by donating today and sharing our new Partnership Program with your company.

-- contributed by *Deb Goodkin*

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## Q2 2017 Conference Recaps

From sponsoring events to attending conferences, the Foundation continued its mission of advocacy in the second quarter of 2017. Over the past few weeks, members of the Foundation team represented the Project and the Foundation at events around the world. Below are just a few of the conference recaps.

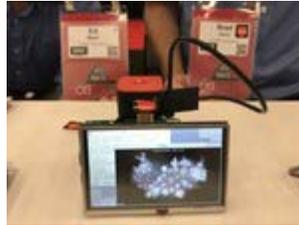
### FOSSASIA 2017 - contributed by Philip Paeps

The Foundation kindly funded part of my travel from Tokyo to Singapore to attend FOSSASIA. I gave the "FreeBSD is not a Linux Distribution" presentation that Foundation board member, George Neville-Neil wrote for Open Source China in December. My presentation was well-attended, and I got a lot of good questions from the primarily Linux-oriented audience. [Read more...](#)

### OSCON 2017 - contributed by Ed Maste

I represented the FreeBSD Foundation at [OSCON 2017](#), which took place May 8-11, 2017, in Austin, TX.

The Foundation booth was also staffed by FreeBSD committer Brad Davis and Doug Mcintire from Netgate. We met up Wednesday morning to set up the table. We were part of a "nonprofit pavilion" which consisted of eight or so tables, located between [Open Camps](#) and [Operation Code](#). Open Camps hosts 40+ conferences per year across dozens of open source projects. Operation code aids military vets and their families learn coding and web technologies.



To help attract booth traffic, I brought a Raspberry Pi 3, with a small LCD display attached. As a demo the Raspberry Pi showed a video of a Gource rendering of changes to the FreeBSD source tree over time ([see example](#)). [Read more...](#)

### **RootConf 2017 - contributed by Philip Paeps**

In mid-May I presented at [Rootconf 2017](#) in Bangalore. Rootconf is India's principal conference where systems and operations engineers share real world knowledge about building reliable systems.

As always, it was interesting to hear the difficulties people face trying to run reliable systems on less reliable platforms. While many of the presentations were very Linux-specific and not very exciting to me, a couple of talks did catch my eye.

I particularly enjoyed the talk by Aruna Sankaranarayanan [explaining how Mapbox takes advantage of Amazon's "spot pricing" mechanism](#) by spawning and shutting down machines at different price points to optimize for cost without compromising availability. Their [spotswap](#) software has been released under a BSD license. It sounds like it should be possible to port this to FreeBSD with minimal effort. [Read more...](#)

### **BSDCan 2017/FreeBSD Developers Summit - contributed by Deb Goodkin**

One of our initiatives is to assist in providing face-to-face knowledge sharing and development opportunities around the world. One way we do this is by sponsoring BSD-related conferences and FreeBSD Developer and Vendor Summits. We recently sponsored both [BSDCan 2017](#) and the [FreeBSD Developer and Vendor Summit](#) in Ottawa, Ontario, Canada, which took place June 7-10, 2017.

Many of our board and staff members attended the summit and conference to run tutorials, give presentations, lead sessions, work with developers, give demos, and share knowledge.

In addition, this year we were pleased to bring our new University of Waterloo interns to the conference where they had the opportunity to

demonstrate some of their projects at the Foundation table. [Read more...](#)



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## Open Travel Grant Applications



The Foundation recognizes the importance of bringing members of the FreeBSD community face-to-face to both further development of the Project and spread the word about FreeBSD. Travel grants are available to community members who need

assistance with travel expenses for attending conferences related to FreeBSD development and advocacy. Please note: The travel grant policy has been recently updated. Please carefully review before submitting your application.

### **vBSDcon 2017: September 8-9, 2017, Reston, Virginia**

Application Deadline: July 20, 2017

Find out more and apply [here](#).

### **EuroBSDcon 2017: September 21-24, 2017, Paris, France**

Application Deadline: Aug 2, 2017.

Find out more and apply [here](#).

*-- contributed by Anne Dickison*

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## FreeBSD Day was June 19!

June 19th was declared FreeBSD Day! Thank you to everyone who joined us in honoring the FreeBSD Project's pioneering legacy and continuing impact on technology. Find out more about FreeBSD Day and how we celebrated [here](#).

Finally, if you haven't seen it yet, take a minute to see just some of the reasons [why people love FreeBSD](#).

*-- contributed by Anne Dickison*

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## FreeBSD Discount for SNIA Storage Developer Conference 2017

The FreeBSD Foundation is pleased to be an Association Partner at the [2017 SNIA Storage Developer Conference](#). SDC '17 takes place in Santa Clara, CA on September 11-14, 2017.

SDC's agenda will include over 100 sessions covering topics from Persistent Memory, Security, Cloud, Filesystems, Storage Management, and more.

Available Discount: FreeBSD community members are entitled to receive the SNIA Member rate on SDC registration. [Register](#) using code by SDC17FreeBSD by August 11th and save an additional \$300 with the Early Bird Discount.

-- contributed by Anne Dickison

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