conference REPORT™

by Benedict Reuschling

EuroBSDcon 2017 **Trip Report**

EuroBSDcon in Paris, France, was a much-anticipated event. Throughout the year, at every BSD gathering, big and small, I heard people talking about it and making plans to get there. Even months before the conference, it was being billed as the biggest event so far, drawing attendees from all over the world. For me, it was an opportunity to give my first tutorial at EuroBSDcon, and it was also my first trip to France.

Arrival

On Tuesday, I flew into Paris, and soon found myself at dinner with Allan Jude and Niklas Zeising, who had come in with friends a few days earlier—really, it's Paris! Later that evening, Ed Maste joined us at an Indian restaurant where we did a lot of catching up.

The next day, before the board meeting, Ed Maste and I met up with Deb Goodkin from the FreeBSD Foundation for lunch in a nearby so-very-French bistro: sunshine, bistro chairs and tables on a small plaza with local people around us also enjoying the day. After

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updates on various projects, some paperwork, the requisite financials, and making plans for 2018 regarding sponsorship for conferences and events we'd like to attend, most of the members went back to their hotel rooms.

Deb, however, accompanied me as I took advantage of my only window in which to do some sightseeing. We took a stroll toward Notre-Dame Cathedral, impressive outside, as well as inside. Mass was beginning and songs echoed through the centuries-old structure while sunlight mixed with candlelight. Dinner at an excellent Italian restaurant, with George Neville-Neil and others, was filled with conversation about FreeBSD and much more.

devsummit Day 1

The next day we walked to the Mozilla office, a beautiful old building rich with architectural ornaments juxtaposed with modern technology. Mozilla was the host of our two-day FreeBSD developer summit. I had

helped organize the devsummit, putting together the schedule and asking people to submit working group proposals and talks. After Baptiste, one of the organizers of the event, and his assistants had registered everyone for the conference, we had breakfast (my second of the day!), which allowed people to meet and talk before the formal opening of the devsummit.

I opened the devsummit with something never done before. The person who could answer the most questions about France that I had prepared in Kahoot.com would receive a Mogics Power Bagel. Kahoot is a web application that people can connect with on their smartphone or laptop to answer a question that is currently projected on the screen. The trick is not only to be correct, but also to be faster than anyone else. After each round, the current high score is displayed, and participants also get feedback on their devices. It's a fun and interactive way of finding out what people know, with an application that is very popular in educational circles. After the first few rounds, it became clear that no one could beat Dag-Erling Smørgrav, and he won the prized Power Bagel. Look for this game at future events!

Next, we began the work-in-progress session. I had asked people to submit small 7-minute talks about their current work. The session was time-limited to keep people focused, but also to get them interested enough to continue the discussion during the breaks. First-time attendees could easily get to know other developers and what they are working on. We had a talk about a patch for GELI that allows attachment of multiple providers if they all use the same passphrase and keyfiles. Colin Percival gave a breakdown on how much time the kernel spends in certain parts when booting, and suggested ideas on how to shorten the boot time. He aims to reduce the kernel init time from roughly 11.5 seconds to around one second. Olivier Cochard-Labbe showed us his work on increasing FreeBSD packet-forwarding performance and the challenges associated with that. He illustrated it with flame graphs and charts plotting the linear reference numbers against various yet-to-be-committed patches and optimizations.

After the lunch break, Deb Goodkin provided an update on the FreeBSD Foundation, including current development projects and efforts to promote FreeBSD around the world. Scott Lamons, FreeBSD Foundation program manager, and Glenn Weinberg, of Intel, advised us about the current state of the partnership

we have with Intel. The main goals discussed were to foster the collaboration between the Foundation, Intel, and the FreeBSD community, and to improve the support of Intel products in FreeBSD. The rest of the afternoon, the microphone was open. From time to time, people would step to the podium and give a short impromptu presentation or ask for feedback on an issue they were working on. Later that day, we had an organized dinner, which was great for meeting and talking to even more people who were at the tutorials or had just arrived.

devsummit Day 2

The second day of the devsummit began with a talk by Ilya Bakulin on the status of the CAM-based MMC/SDIO stack. This is important work because many embedded boards use this interface to connect the various WiFi modules to it. So, with this work in the tree, it allows FreeBSD to access WiFi on many boards that currently have to use external WiFi via USB, for example. Next, core secretary Matthew Seaman and fellow members did a core team question-and-answer session. This provided us an opportunity to listen to feedback from developers on the work that the current core team is doing. We mentioned the FreeBSD Community Process again for those people who had not been to BSDCan this year where it had been introduced to a larger audience. Allan Jude and I also reflected a bit about our first-time experience being on core, and we encouraged people to run for core in next year's election.

After a coffee break, Scott Long from Netflix gave a talk about future work to provide FreeBSD with better non-uniform memory access (NUMA) support. A handful of people are involved in this, and the attendees agreed that it is an important area for development. I stepped out briefly to welcome Christian Schwarz. Although still a student about to start his bachelor thesis, he had already put in a lot of work on creating a ZFS replication solution called zrepl. I was impressed by this and had invited him to the devsummit to present his project which was well received: not only were people impressed by the work, but also the quality of his presentation. It brought a smile to my face when people suggested that he should submit his talk to AsiaBSDcon and BSDCan next year. This is exactly the type of event where newcomers from the community get to show what they've done and get feedback and encouragement from developers, which will lead to further collaboration and code contributions.

I had to leave the devsummit for my Ansible tutorial, but I heard that the rest of the devsummit had two working groups: one on sandboxing (Capsicum, Casper, and friends) and another on continuous integration in FreeBSD.

When I arrived at the tutorial venue, I met Michael Lucas, who had given his "Core Concepts of ZFS" tutorial that morning. I had submitted an updated "Managing BSD Systems with Ansible" tutorial to EuroBSDcon, originally given at AsiaBSDcon earlier in the year. Back then, there was already a lot of interest in the tutorial, and even more people turned up at EuroBSDcon—there was not an empty seat! I enjoy the interactive nature of a tutorial, as there is often someone in the audience who can provide more details or alternative approaches. This turns the session into a learning experience for everyone, and by the end, even the tutorial host has learned new bits of information. During the break, people tried out the examples or asked for the slides for later study. Feedback was good, so I'm considering submitting the tutorial as Version 3 to other BSD conferences (BSDCan 2018 comes to mind).

That night found us at yet another great and interesting restaurant, one with a cellar-like interior with an arched roof. And, of course, being the night before the conference, even more people were there. I noticed Brendan Gregg, whose keynote I was very much anticipating. A fair number of stories, quips, and other conversations were had over food and drink, after which we all returned to our hotels.

The Conference Day 1

The conference had everything you would expect from a good BSD conference: keynotes, three parallel tracks, breaks in regular intervals (a bigger one for lunch), breakout rooms, a recording crew and streaming, and, of course, a good hallway track. The conference took place in a Rosicrucian temple, with plenty of room for the over 300 attendees. Egyptian statues were around us and hieroglyphs lined the walls—probably was the ASCII of the time.

As with all BSD conferences, I create a schedule in advance of the talks I want to attend. But once I'm there, I sometimes get into an interesting discussion with people and miss the start of a talk. At other times, I make up my mind on the spot and wander into the exact opposite talk—with mixed results. Recordings permit me to watch the talks I missed once they are available, but nothing beats hearing a good talk in person.

On the first day, I missed the battle of the BSDs talk by Antoine and Baptiste because I had to proctor the BSDA exam. I saw the first part at AsiaBSDcon this year, so I did not miss it completely, and giving people a chance to get their BSD knowledge certified is as good an excuse as any for missing it.

The social event was held on a boat next to the Eiffel Tower. Instead of a traditional dinner, where you sit down at either a single table with a few people or a very long one, this was a standing dinner. Waiters walked around all night serving delicious snacks that only the French can produce. There was

also an open bar. Groups formed and split up again, allowing for varied conversations with a lot of people. Also, since the boat was moving and night had fallen, we saw a panorama of illuminated Paris at night. At times, we passed under a bridge that was just an arm's length above our heads. Sometimes other boats overtook us, or we would see people dancing along the riverfront. It was a wonderful night, with many good conversations about BSD and other topics.

The Conference Day 2

The next conference day was just as good as the first. I helped out at the FreeBSD Foundation table, talking to people and making new acquaintances. Many of them knew my name before I knew theirs, as they watch BSDNow, where I have been a host since Kris Moore's retirement from the mic, providing news about what's going on in the BSDs. I enjoyed the feedback and encouragement.

Before I knew it, the closing keynote by Brendan Gregg was starting. I was seated in the front row because I had a job to do during the closing session. Brendan had revised some of his slides about performance analysis methodologies, but also had new slides centered around BSD tools. That way, it provided something new for everyone. The talk is available here: http://www.brendangregg.com/blog/2017-10-28/bsd-performance-analysis-methodologies.html.

During the closing session, various future conferences were pitched, and the audience was encouraged to attend and submit talks. The various BSDs gave short presentations about their work, and Deb Goodkin and I recognized the work of four FreeBSD developers.

Both Baptiste and Antoine, who had worked so hard to put together this event, were rather hoarse by the end, but everyone thanked them for their hard work and dedication in making this EuroBSDcon such a great success. I went with a small group to have one last dinner in Paris and to reflect on the conference. Some people stayed in France a couple of days, but for me, I had to fly home, knowing that this had not been my last EuroBSDcon. ●

BENEDICT REUSCHLING joined the FreeBSD Project in 2009. After receiving his full documentation commit bit in 2010, he actively began mentoring other people to become FreeBSD committers. He is a proctor for the BSD Certification Group and joined the FreeBSD Foundation in 2015, where he is currently serving as vice president. Benedict has a Master of Science degree in Computer Science and is teaching a UNIX for software developers class at the University of Applied Sciences, Darmstadt, Germany.