conference REP⦿RT

by Roller Angel

EuroBSDcon 2018—Bucharest, Romania

PRIOR TO THE CONFERENCE

September found me in Bucharest for EuroBSDcon 2018, and my first talk at a BSD conference on the other side of the world! Once my proposal—about teaching, learning, and building confidence, all focused around BSD technology—was accepted, I had immediately started making arrangements for what felt like a once-in-a-lifetime opportunity, but what I know now was a door opening.

WEDNESDAY

I arrived early Wednesday Romanian time, which was still late-Tuesday Colorado time. Ironically, the name of the hotel where speakers were housed was quite fitting—Hotel Yesterday! Since it was early in the day, I wandered around the streets of Bucharest sightseeing while the hotel prepared my room for check-in. The city has a deep, old history with a population of about 2.1 million; New York City has 8.6 million. But the population density is about the same.

THURSDAY

I walked from the hotel to the conference, which was held at Politehnica University of Bucharest, the largest technical university in Romania, founded in 1864 as the School of Bridges and Roads, Mines and Architecture. It was renamed in 1920. A conference attendee named Pedro was the first person I met. We registered at the same time and then sat together. We immediately started talking about our FreeBSD laptops and shared various tips and tricks. For instance, Pedro demonstrated how easy it is to tether the Internet via USB from Android to

FreeBSD: Enable USB tether, plug in the cable, run dhclient followed by the name of the device (ue0 or similar), wait a few seconds and the Internet from the conference WiFi is connected on FreeBSD through USB tether on Android. Pedro was running FreeBSD-CURRENT on his laptop, and I run FreeBSD-RELEASE on mine. When Benedict Reuschling joined us, we walked together to his Ansible tutorial.

Reuschling's tutorial was full of useful examples and included in-depth explanations of the various parts of the system while demonstrating how to use them in practical ways. I really enjoyed learning so many techniques for managing servers.

Next, I attended the Poudriere tutorial by Niclas Zeising, who did an amazing job introducing Poudriere and demonstrating some functions one might want to use when compiling ports. He also walked participants through the steps of creating a port. Tutorial participants were invited to attend the Devsummit dinner, so I decided to go along and ended up at a table with Deb Goodkin and Benedict Reuschling. Shortly after the dinner, Mahdi Mokhi joined the table and we discussed what I have been working on with FreeBSD and Python.

FRIDAY

Pedro was there again, and this time we talked about setting up email for my BSD.pw domain. He suggested caesonia mail server, which uses OpenBSD and is made by the same people who make the vedetta firewall. Then it was time for Friday's tutorial, an all-day session focused on BGP and taught by the brilliant Peter Hessler. It was the culmination of several years of feedback and iteration, so I was able to experience an advanced version of the tutorial that included a web interface with two terminals side-by-side, all ready to go. Instead of having each tutorial participant install two OpenBSD virtual machines configured to run BGP, Peter hosted two OpenBSD virtual machines for each student on his laptop that was connected to the EuroBSDcon WiFi where he set up the URL bad.network. Each participant received a slip of paper that included the URL, username, and password needed to access a particular pair of machines using just a web browser. This worked incredibly well as the entire room was able to get up and running quickly. The tutorial included

information on networks, subnets, and static routes, which are a prerequisite to understanding BGP and its important role on the Internet. BGP stands for Border Gateway Protocol and it was designed to allow AS routers—known as autonomous systems—to share routing tables. It basically allows computers on the Internet to find each other in order to connect. I had a great time learning about BGP, sharing routing tables with other participants and learning about the importance of filtering the routes announced by peers. Hessler asked participants to share routes and then demonstrated what can happen when you don't use proper filtering. A peer can just announce every address—yes, every single address—and make the processing on your machine go crazy. Everyone was pleasantly entertained and had a great time. I highly recommend this tutorial to anyone wanting to learn about BGP.

After the all-day tutorial, I headed over to the Devsummit dinner. I sat next to Marshall Kirk McKusick and ended up talking to him all night. In fact, his husband actually told me at the end of the night that I had monopolized Kirk, and so I was responsible for making sure he made it back to the hotel safely. Oops! I guess I deserved that. I couldn't help it! Sitting next to this revolutionary FreeBSD committer was my opportunity to ask a lot of questions. What an experience that was.

SATURDAY

The morning announcements were given by Michai Stanek and then he introduced his colleague, Costin Raiciu, from the Politehnica University of Bucharest. Costin gave the morning keynote on "Lightweight Virtualization." He presented some interesting research on the topic and an example of a very tiny Python environment running on one of the machines.

Next, "Hacking Together a FreeBSD Presentation Streaming Box for as Little as Possible," by Tom Jones, provided some useful examples on how one might record and stream BSD conference slides along with the speaker's voice. The conference was designed to provide a lot of varied information in a short time, and so I was then on to Kristaps Dz's "OpenBSD and Diving." Not only humorous and full of great pictures, this presentation was also full of great facts on the use of OpenBSD for managing and editing media. All the media transfer, editing, and color correcting was done on OpenBSD. Kristaps asked if anyone had suggestions for good media management applications, and I recommended Plex. I told him I'd only seen it available in the FreeBSD ports collection, but he assured me that was not a

problem and he would look into porting it to see if it fits his workflow. I think it will, as I use it every day and it does a good job of removing a lot of the complexity associated with media management as well as providing a stable interface for working with media.

In the talk by Ingo Schwarze on some of the headaches related to working with Markdown, he asked for help with a CSS issue in the main mandoc.css file that controls the presentation of man pages on the web for OpenBSD. I'm familiar with CSS and offered to take a look at the issue to see if I could help. The moment I saw the code, I recognized the issue and knew what it would take to make the fix. I just needed to find the time to sit down and write the code. Ingo assured me that I could take my time and contact him at my leisure. Not only are there great opportunities to take in information, but also opportunities to be a part of the public conversation.

The next talk was "What's in Store for NetBSD 9.0," in which Sevan Janiyan shared the milestones reached in the NetBSD project, including details about what will be in the next release. I highly recommend checking out his slides. All conference slides are available for download via the EuroBSDCon.org website. The second keynote, "Some Computing and Networking Historical Perspectives," by Ron Broersma, was a real treat for all in the room. Ron brought along various historical artifacts from his early career, including his work on Arpanet. The entire auditorium loved the talk and you could feel the interest growing in the room each minute. Ron would periodically pull out an artifact from under the podium—for example, an old boot card that used to come with the big, million-dollar computers in use at the time. You actually needed to use the card to know where in memory to set the program to be able to boot the thing. You had to manually type in the codes to get everything lined up so that boot would function properly! After the talk, Ron welcomed people to come up and look at the items he had brought with him.

SUNDAY

On the last day of the conference, I was running a little late but hurried over to the venue in time to catch "Pledge and Unveil in OpenBSD," by Bob Beck. Bob understands the guts of operating system development and presented some best practices and various ways to write safe programs on OpenBSD with pledge and unveil.

I was totally lost at "Integrate libFuzzer with the NetBSD Userland," a very advanced and technical talk by Yang Zheng. Perhaps one day I will get to

the point where I can grok this topic.

"DeforaOS, NetBSD, Future Internet," by Pierre Pronchery, was a very intellectual talk. Pierre is a very thoughtful developer who pushes the limits and has a fantastic understanding of the underlying technology. I learned a lot about why things are the way they are and was given a challenge to make things better.

"Debugging Lessons Learned as a Newbie Fixing NetBSD," by Maya Rashish, followed a newbie through the process of contributing to NetBSD and detailed some of the things a person new to the Project should be aware of. After Maya's talk, I caught the tail end of "FreeBSD Graphics," by Niclas Zeising, where I asked a question about a hiccough in the process of compiling drm-stable-kmod. There is an ignore flag in the Makefile that needs to be removed if one wants to compile the port on FreeBSD 11.2-RELEASE, which is what I'm using. Niclas said it must have been an oversight and that it should work fine on 11.2. I let him know I removed the ignore flag from the Makefile and compiled drm-stable-kmod on my 11.2-RELEASE laptop and it has been working like a charm.

I was up next with my talk, "Being a BSD User." Minutes before I started, the adrenaline kicked in.

Despite my nervous reaction to public speaking, the talk went quite well. The audience was engaged and asked questions. I shared information on my experiences with BSD technologies and how teaching young scientists about the technology is a great experience. Learning about all the cool things you can do with the BSDs and about the amazing community is an experience I enjoy bringing to others. I had some great feedback from Allan Jude, Kirk McKusick, and others. Although I was initially a little concerned about the 45-minute block I needed to fill, once I began talking, my passion took over and I was able to fill the time slot with no problem.

There were 181 attendees from 37 countries. Groff was brought to the conference by Sevan Janiyan and put in the care of Deb Goodkin at the closing session. ●

Roller Angel is an avid BSD user who enjoys all the amazing things that can be done with BSD technology. He has taught programming workshops based on FreeBSD and is working on building an online training platform for teaching BSD and related technologies. See BSD.pw for more information.