Free Software Leftovers

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- **Submit your session for LibrePlanet 2021 before Oct. 28** **[3]**

  Submissions are being accepted through Wednesday, October 28 at 12:00 Eastern Daylight Time (16:00 UTC). General registration, award nominations, exhibitor registration and sponsoring packages will open soon.

  We invite activists, hackers, law professionals, artists, students, developers, young people, policymakers, tinkerers, newcomers to free software, and anyone looking for technology that aligns with their ideals, to submit a proposal for a session at LibrePlanet. Session proposals can focus on software development, copyleft, community, or other related issues.

- **End-to-end network programmability** **[4]**

  McKeown began by noting that he has used free operating systems throughout his 30-year career in networking, first BSD, then Linux. Those operating systems have shaped networking in various ways; they have also shaped how networking is taught to undergraduates at Stanford University, where he is a professor. The Linux infrastructure is "an amazing example of networking at its best that we show to our students and try to get them experience getting their hands dirty using it", he said.

  He is a "huge believer in the open-source community for networking". In his group at Stanford, all of the code is released as open source. The "real revolution in networking" over the last ten years or more has been the rise of open source as a "trustworthy infrastructure for

how we learn about and operate networks". Ten or 12 years ago, everyone was using closed-source, proprietary networking equipment, but today's largest data centers are all running on mostly open-source software, mainly on Linux-based equipment.

This change is pleasing to him?not simply for the sake of openness?but because it has allowed the owners and operators of this equipment to be able to program it. Those players can then introduce changes into their networks to improve their service in various ways. That kind of innovation can only be helpful to the networking world in the future.

A combination of express data path (XDP) and BPF provides the ability to do fast packet forwarding in the Linux kernel. In parallel, new forwarding pipelines, hardware accelerators, switches, and smart network-interface cards (NICs) are emerging, many of which are programmable using the P4 language. How can those two things be brought together so that the benefits can be gained end-to-end? Those two "camps" could be determined to be in opposition to each other, but he hopes that does not end up being the case. If the two do not end up working together, he said, it "will only confuse developers and users".

- **Intel oneAPI Level Zero 1.0 Released [5]**

  As part of the upcoming oneAPI 1.0 "Gold" release, oneAPI Level Zero 1.0 was released this morning.

  Intel's oneAPI Level Zero API is their direct-to-metal interface for offload accelerators. To date it's largely been about Intel GPUs but there is also work on supporting FPGAs, other GPUs, and other offload accelerators in general. With the oneAPI Level Zero 1.0 release, their low-level API is signaled that its ready for adoption and production use.

- **5 Best Free Configuration Frameworks for Emacs [6]**

  Getting to grips with Emacs is not easy. In fact, it can be one of the steepest learning curves for newcomers. Learning the concepts and being productive with this editor to produce your own dotfiles from afresh takes time and a fair chunk of effort.

  But there?s a much easier way to start being productive. There are numerous projects that produce their own package of configuration. These configuration frameworks take the vanilla Emacs and add their own configuration files, pre-defined internal commands, and configurations for various plug-ins (known as packages). In essence these configuration framework replace your .emacs.d directory, offering an easy to use Emacs configuration for Emacs newcomers and lots of additional power for Emacs power users. The configuration frameworks are sometimes labelled Emacs distributions.

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Daniel Stenberg: curl ping pong [7]

> Pretend that a ping pong ball represents a single curl installation somewhere in the world. Here?s a picture of one to help you get an image in your head.
>
> [...]
>
> If you manage to do this construction work non-stop at the rate of one ball per second (which seems like it maybe would be hard after a while but let?s not make that ruin the fun), it will keep you occupied for no less than a little bit over 317 years. (That also assumes the number of curl installations doesn?t grow significantly in the mean time.)
>
> That?s a lot of ping pong balls. Ten billion of them, give or take.
>
> Assuming you have friends to help you build this tower you can probably build it faster. If you can instead sustain a rate of 1000 balls per second, you?d be done in less than four months.
>
> One official ping pong ball weighs 2.7 grams. It makes a total of 27,000 tonnes of balls. That?s quite some pressure on such a small surface. You better make sure to build the tower on something solid. The heaviest statue in the world is the Statue of Liberty in New York, clocking in at 24,500 tonnes.

GNU OSS

Source URL: http://www.tuxmachines.org/node/141202

Links:
[1] http://www.tuxmachines.org/taxonomy/term/144
[2] http://www.tuxmachines.org/taxonomy/term/72
[3] http://www.fsf.org/blogs/community/submit-your-session-for-libreplanet-2021-before-oct-28
[4] https://lwn.net/Articles/828056/
[5] https://www.phoronix.com/scan.php?page=news_item&px=Intel-oneAPI-Level-Zero-1.0
[6] https://www.linuxlinks.com/best-free-configuration-frameworks-emacs/
[7] https://daniel.haxx.se/blog/2020/08/20/curl-ping-pong/