conference REPORT

by Michael Dexter

BSDCan 2014 was an amazing experience as always, but one theme characterized this year's event more than any other: **COORDINATION**.

Never in my dozen years in the community have I seen such active dialog among the various BSD projects. From praise to constructive criticism, developers from all the projects engaged with one other in sessions and in the priceless BSDCan hallway track. Beginning with a project that is close to my heart, Peter Grehan announced at the FreeBSD DevSummit that the bhyve hypervisor would soon support NetBSD, rounding out its support for OpenBSD, NetBSD and Linux virtual machines. I can think of no better way for developers to see firsthand how each operating system works and to cross-validate code. Kudos to Peter, Neel Natu, John Baldwin and everyone else who has helped bhyve become such a useful feature in FreeBSD.

Continuing in the spirit of coordination, Abhishek Gupta of Microsoft's Hyper-V group was on hand to discuss with developers how to guarantee that FreeBSD is a first-class Hyper-V guest OS. From the sound of it, Microsoft appears to have more developers focusing on FreeBSD than Intel! Together, bhyve and Hyper-V represent compelling OS-native hypervisors, and rest assured, Windows virtual machine support in bhyve is under active development.

Matt Ahrens of the OpenZFS project gave his annual update on new ZFS features that are making their way into FreeBSD in order to keep FreeBSD a first-class ZFS platform. Of these features, ZFS "bookmarks" will enable ZFS replication without relying on snapshots as a unit of history. Just how quickly the OpenZFS project transitioned from post-Sun Microsystems confusion to solid, OS-agnostic contributions is remarkable. We all owe Matt, who has just received his FreeBSD commit bit our gratitude for his active participation in the BSD community at events like BSDCan and AsiaBSDCon.

Other DevSummit highlights included a clarification of FreeBSD's "long-term support" policy with the comforting recognition that the project had in fact been more or less adhering to the proposed 5-year policy. A formal affirmation of such a policy is a valuable marketing tool for everyone from vendors to end users. A suggestion was raised for separating the FreeBSD base into packages to allow for modular updating and deployment. Done right, this could be of great value to embedded FreeBSD efforts.

Two notable highlights of the FreeBSD Doc Sprints were the participation of Ingo Schwarze of the mandoc project, who committed FreeBSD's Igor documentation proofing tool to OpenBSD ports, and Allan Jude's formal entrance into the FreeBSD project with a documentation commit bit. Allan and Kris Moore have done a great job raising awareness of FreeBSD and other BSD projects with the BSDNow podcast and are demonstrating just how seamless community and code participation can be.

Though many of us were already exhausted from all-day discussions and late-night coding, it was finally time for the conference proper to begin. This saw an infusion of yet more wonderful people and continued engagement and coding. Security was a key topic with the FreeBSD Address-space Layout Randomization (ASLR), Capsicum and LibreSSL talks standing out as must-see events. Each talk was highly cross-pollinated by developers from different BSD projects with almost a sense of obligation to the Internet community as a whole, given BSD's key role in the development of the Internet.

The Embedded track comprised of ARM, MIPS64 and NAND flash storage talks and was also very timely given the changing nature of computing. Warner Losh went into great detail about how NAND flash storage works and how a broad range of reliability is available from the various flash technologies. This track even extended to a lunch time MIPS router hacking BOF lead by Sean Bruno. It is great that we have real Unix on really affordable hardware.

The closing auction was fun as always and the clouds broke on Sunday, allowing quite a few attendees to walk around Ottawa and Parliament before heading home. Some brave systems administrators opted to take the first BSD Certification Group BSD Professional exam and the feedback I heard was very positive. The BSD Professional exam is a hands-on exam designed to complement the BSD Associate exam that the BSDCG has offered for several years. This is an exciting development and is testament to the continued growth of the BSD community. ●

Michael has used BSD Unix systems since 1991 and has participated in the jail, sysjail, mult, Xen and most recently bhyve virtualization projects. He is an independent BSD author and support provider.