OpenBSD 6.4 / OpenBGPD 6.4

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OpenBSD

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- 23 year anniversary on October 18th
- 6.4 released today

- major improvements to our arm64 and armv7 platforms
- many improvements and drivers for modern amd64 based laptops
- many improvements for guest OSes in our virtualization hypervisor
- defenses against ROP attacks and misbehaving applications

we are upstream for

- openssh
- tmux
- libressl
- mandoc
- opensmtpd

- wifi join
- lacp administrative knobs
- microtik EoIP
- further work in an SMP-safe network stack
- more unlocked syscalls (sendmsg, sendto, recvfrom, and recvmsg)
- networks(5) support has been removed

network daemons

- ospf6d routing domains (VRFs)
- slaacd fully pledged
- slaacd better behaved on networks (DAD, network roaming, etc)
- rad replaces rtadvd

OpenBGPD and the RIPE Community Projects Fund

- money was raised
- Thank you to RIPE Community Projects Fund
- DE-CIX, Netnod, AMS-IX, BCIX, LONAP, Asteroid, Namex, University of Oslo
- apologies if I missed anyone

OpenBGPD and the RIPE Community Projects Fund

- money was spent
- Claudio Jeker is now working full time on OpenBGPD
- 1 year of funding is secured
- 5 months of effort so far

- RFC8212 compliance (default deny policy)
- remove announce self, move to filter rules instead
- RPKI ROA support (static table, no RTR support)
- sets for prefixes, ASNum, and origins (prefix + source-as)
- … replaces many filter rules with a single fast lookup
- background soft-reconfig on config reload
- … on reload, withdraws and updates are still processed
- 154 commits since 6.3

OpenBGPD 6.4

- YYCIX is using this in production already
- 46 members
- 6.3 370,000 filter rules
- 6.4 less than 6,000 filter rules

- better community filtering
- ... matching more than one community per filter rule
- ... faster set and delete communities
- more filter improvements
- further RIB refactoring
- OpenBGPD portable

- multi-threaded RIB support
- FIB for other OSes in the portable version
- new features (ADD_PATH, BGP multipath, BMP, RTR)

openbsd needs funding to continue development work
general funding, sponsors for hackathons, etc
www.openbsdfoundation.org - a canadian not-for-profit corporation
direct contact with developers for directed work