

State of SELinux

Paul Moore

August 2018

Birthdays

- SELinux is turning 18 years old
 - First release December 22, 2000
- Part of mainline Linux for 15 years
 - Linux v2.6.0-test3 released August 9, 2003
- Part of Enterprise Linux for 13 years
 - RHEL 4 released February 15, 2005
- Part of Android for 5 years
 - Android 4.3 released on July 24, 2013
 - Enabled on ~96% of devices (as of July 23, 2018)

Kernel Changes

- New access controls for eBPF
- Added proper SCTP access controls
- Support SO_PEERSEC on socketpair(2) sockets

Userspace Changes

- Toolchain support for SCTP and InfiniBand objects
- Improvements to semanage and semodule
 - List home directory entries with 'semanage fcontext -l'
 - Enable/disable multiple modules at once with semodule
- Python 3 support for selinux-gui

Reference Policy Changes

- Migrated to the “SELinuxProject” on GitHub
 - All SELinux development in one place (sorta)
- Merged the “contrib” sub-module into the main repo
- Two releases this year with enablement and fixes

Who is SELinux? (kernel since Sept 1, 2017)

- Change summary
 - 71 change sets
 - 31 developers
 - 3055 lines added
 - 1725 lines removed
- Top 10 by lines changed
 - Stephen Smalley 1947 (62.7%)
 - Richard Haines 438 (14.1%)
 - Peter Enderborg 182 (5.9%)
 - Chenbo Feng 166 (5.3%)
 - Eric W. Biederman 71 (2.3%)
 - Jann Horn 45 (1.5%)
 - Alexey Kodanev 32 (1.0%)
 - Paul Moore 27 (0.9%)
 - Richard Guy Briggs 27 (0.9%)
 - Greg Kroah-Hartman 26 (0.8%)

Who is SELinux? (userspace since Sept 1, 2017)

- Change summary
 - 170 change sets
 - 20 developers
 - 7024 lines added
 - 7143 lines removed
- Top 10 by lines changed
 - Nicolas Iooss 5413 (61.3%)
 - Petr Lautrbach 805 (9.1%)
 - Jan Zarsky 707 (8.0%)
 - Stephen Smalley 569 (6.4%)
 - Marcus Folkesson 438 (5.0%)
 - James Carter 332 (3.8%)
 - Vit Mojzis 310 (3.5%)
 - Richard Haines 107 (1.2%)
 - Jason Zaman 45 (0.5%)
 - Yuli Khodorkovskiy 25 (0.3%)

Who is SELinux? (policy since Sept 1, 2017)

- Change summary
 - 214 change sets
 - 24 developers
 - 120905 lines added
 - 3553 lines removed
- Top 10 by lines changed
 - Chris PeBenito 117494 (96.6%)
 - Sven Vermeulen 1591 (1.3%)
 - Dave Sugar 808 (0.7%)
 - Richard Haines 440 (0.4%)
 - Jason Zaman 393 (0.3%)
 - Guido Trentalancia 189 (0.2%)
 - Christian Göttsche 159 (0.1%)
 - Luis Ressel 134 (0.1%)
 - Nicolas Iooss 123 (0.1%)
 - James Carter 56 (0.0%)

How to Get Involved

- Kernel (official)
 - [git://git.kernel.org/pub/scm/linux/kernel/git/pcmoore/selinux.git](https://git.kernel.org/pub/scm/linux/kernel/git/pcmoore/selinux.git)
- Kernel (mirror) / Userspace / Reference Policy / Tests
 - <https://github.com/SELinuxProject>
- Mailing Lists
 - <https://www.nsa.gov/what-we-do/research/selinux/mailling-list.shtml>
 - <http://oss.tresys.com/mailman/listinfo/refpolicy>
- Me
 - [@securepaul](#)
 - paul@paul-moore.com