

ORACLE

GRUB

Project Status Update

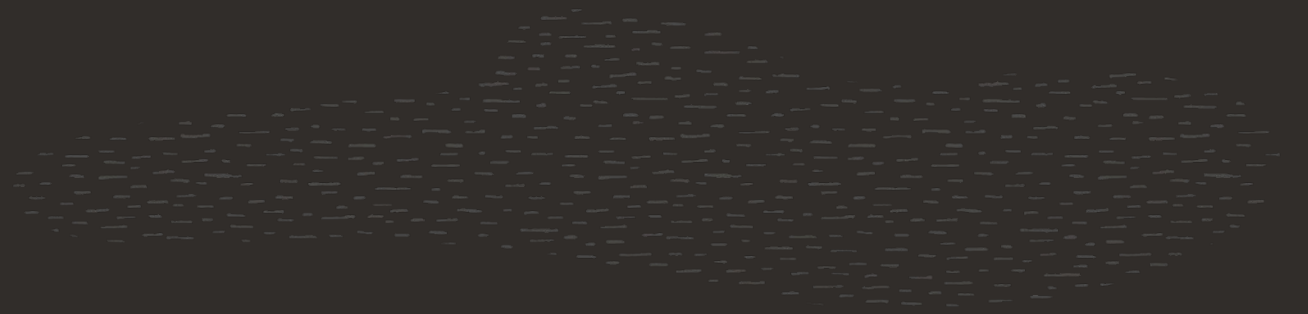
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What happened during last year

- GRUB 2.06 release which contains
 - The BootHole fixes, many folks and companies involved
 - The BootHole2 fixes (many folks and companies involved) including among others
 - 8 CVE fixes
 - 36 Coverity fixes
 - UEFI Secure Boot Advanced Targeting (SBAT)
 - Stack protector implementation
 - Lockdown support
 - Improved verifiers framework
 - The module for retrieving SMBIOS information, David Michael
 - Initial the LUKS2 support, Patrick Steinhardt
 - A lot of cryptodisk and LUKS2 updates, Glenn Washburn
 - Bump miniLZO to 2.08, Peter Jones
 - Addition of the MAINTAINERS and SECURITY files
 - ... and plenty of other fixes and cleanups
- The GRUB 2.06~rc1 release allowed Fedora folks to shave off ~100 custom patches from Fedora 34

Where we are today

- No longer supporting small MBR gaps in the GRUB upstream
- Use full btrfs bootloader area, Michael Chang
- Properly handle gaps in btrfs extent item iteration, Qu Wenruo
- Major GRUB mm rework, Daniel Axtens, Patrick Steinhardt
- Support Argon2 KDF in LUKS2, Patrick Steinhardt
- Support for appended signatures, Daniel Axtens
- Add support for trusted boot on IBM PPC platform using a vTPM, Stefan Berger
- Drop Open Hack'Ware, an alternative firmware of PowerPC under QEMU, Daniel Axtens
- The cryptodisk code simplification, Glenn Washburn, Patrick Steinhardt
- Add cryptodisk detached headers and key files support, Denis 'GNUtoo' Carikli, Glenn Washburn, Patrick Steinhardt
- Use confidential computing provisioned secrets for disk decryption, James Bottomley

Where we are today

...continuation

- Tests improvements, Glenn Washburn
- Discussing tests automation for the GRUB upstream development
- Substantial docs updates, Glenn Washburn, Daniel Axtens and others
- More Coverity fixes for x86_64 UEFI, Alec Brown, Darren Kenny
- Add LoadFile2 and RISC-V Linux loader, Ard Biesheuvel, Atish Patra, Nikita Ermakov
- Bump miniLZO to 2.10, Colin Watson
- Add LoongArch support, Xiaotian Wu
- Support writing the GRUB modules in Rust (RFC), Daniel Axtens
- TrenchBoot work on hold due to ongoing discussions about the architecture
- ... and bumped the GRUB release number to 2.11...
- The 2.12 release is planned around mid of 2022...

Some stuff for reading

- [SECURITY PATCH 00/28] Multiple GRUB2 vulnerabilities - BootHole
<https://lists.gnu.org/archive/html/grub-devel/2020-07/msg00034.html>
- [SECURITY PATCH 000/117] Multiple GRUB2 vulnerabilities - 2021/03/02 round
<https://lists.gnu.org/archive/html/grub-devel/2021-03/msg00007.html>
- UEFI Secure Boot Advanced Targeting (SBAT)
<https://github.com/rhboot/shim/blob/main/SBAT.md>

Thank you

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