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GRUB upstream and distros cooperation

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FOSDEM 2020, February 2nd, 2020

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Program agenda

1   GRUB maintainers

2   What happened last year

3   What is on our plate right now

4   Pain points

5   Discussion about the community/distros expectations

GRUB maintainers

- Alexander Burmashev, Oracle
- Daniel Kiper, Oracle
- Vladimir 'phcoder' Serbinenko

- Alexander Graf takes care of RISC-V
- Leif Lindholm takes care of ARM and UEFI

What happened last year

- RISC-V support, Alexander Graf
- Initial Travis CI support, Alexander Graf
- Easier Gnulib bootstrap, Colin Watson (Ubuntu)
- IEEE1275 obdisk driver, Eric Snowberg (Oracle) on Debian folks request
- Intel MSR read/write modules, Jesús Diéguez Fernández
- Native DHCPv4 support, Andrei Borzenkov and Andre Przywara (arm)
- Build a.out output for sparc64 manually, John Paul Adrian Glaubitz
- Add GCC 9 build support, Michael Chang
- LUKS2 support, Patrick Steinhardt
- GRUB 2.04 release…
- …and plenty of fixes and cleanups

What is on our plate right now

- Close cooperation with the TrenchBoot project (https://github.com/TrenchBoot/documentation/)
  - Oracle is working on the Intel TXT implementation - RFC is planned at the end of February or at the beginning of March
  - 3mdeb is working on the AMD SKINIT implementation – it will be rebased on top of the Intel TXT one

- RedHat is committed to forward port to upstream all patches carried in RedHat and Fedora
  - Other distros are also encouraged to do the same thing for their own patches
- RedHat plans to use Linux kexec to load another OS from GRUB
- Discussed many new interesting features with 3mdeb folks, including
  - Redundant GRUB env file
  - TPM 2.0 support in GRUB for the legacy boot mode
  - Python integration with GRUB (e.g. needed for BITS, firmware validation tool)
- GRUB 2.06 release
  - The code freeze around March, release no later than June
  - We are planning to release yearly, starting from now
- Currently all patches are at least build tested for most supported platforms

What is on our plate right now
…continuation

- We are working on new code review and test system. We hope to announce it by the end of this year.

- We are discussing the Linux kernel UEFI boot protocol unification for all targets.

- Finally we are planning to admit officially that GRUB upstream does not support 62 sectors MBR gap on i386-pc targets. This can be painful for some distros due to lack of simple migration mechanism to newer partitions layouts, e.g. GPT with BIOS boot partitions. However, on the other hand it is not possible to cut the arbitrary code from the core.img endlessly. And at some point there would not be anything to cut… And we think that we are close to this point.

Pain points

- Increase the patches review „throughput" and decrease the response delay for emails. Well, we try to catch up but more eyes looking at the patches are welcome.

- Improve overall cooperation with distros and the other interested parties. Now we are in touch with RedHat.

- Some people start posting the patches and drop the work in the middle. This does not help. Maintainers spend their time reviewing and nothing comes out of it. So, we waste time and lose features/fixes/cleanups. And often maintainers are not able to take over work on the patches due to their workload. So, please treat us seriously and do not do that! Always finish your work!

- It seems to us that some people do not carefully read maintainer's comments. They post the new versions of patches without all requests taken into account and then complain that their work is delayed. We understand that the authors may not fully agree with some comments. It does not help if they are skipped silently. Even it makes the situation worse and delays final patches acceptance. So, if you do not like a given comment, please complain. If you agree with it, take the comment into account in next version of patches. Silent omissions do not help and frustrate both the authors and maintainers.

Pain points
…continuation

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- If you work on a new feature please do that on GRUB upstream instead of a specific distro version. Otherwise you increase backlog and make life more difficult for upstream and distro maintainers.

Discussion about the community/distros expectations

- What do you care about?
- What is not important for you (at all)?
- Do you think our planned priorities are the same as yours?
- Are there any other community/distros expectations?