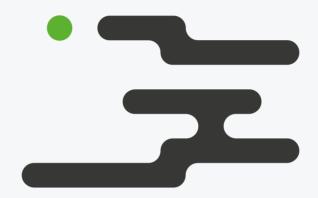
Intro

GRUB2 and 3mdeb "minisummit" 2019

Piotr Król





- open-source consulting company focused on
 - Open Source Firmware (coreboot, LinuxBoot, UEFI/edk2, ATF)
 - Embedded Linux (Yocto, Buildroot)
 - Automated Validation (kernelCl, LAVA)



Who am I and who we are?



Piotr Król Founder & Embedded Systems Consultant

- open-source firmware
- platform security
- trusted computing

- piotr.krol@3mdeb.com
- 📵 linkedin.com/in/krolpiotr
- **(f)** facebook.com/piotr.krol.756859





- Why we doing this
- "minisummit" form
- Who we invited this time?
- What we will talk about today?
- "minisummit" agenda





- Obvious reasons
 - because we can
 - because it is form of marketing
 - build relations
- Not-so-obvious reasons
 - to keep relation with open-source community representatives
 - to stop and think about problems in one given area
 - to gather status of various activities which outcome can be of mutual benefit
 - plan and discuss possible cooperation, engagement and investment





- Earlier this year we did <u>"Qubes OS and 3mdeb minisummit"</u> interestingly it appeared to be quite successful event with lot of good word and feedback from community
- Also materials from such event appeared to be great reference point for discussion
- Of course this is far from typical minisummit event, feel free to recommend better name
- We invite maintainer of given project
- We prepare some presentation about topics related to open-source project that we think need more discussion
- Zero-overhead for maintainer despite loosing your day with 3mdeb team ;)
- One day event
- We record and publish all materials



Who we invited this time?

- **Daniel Kiper**, Oracle, Software Developer
- GRUB upstream maintainer
- Xen boot code developer
- TrenchBoot technical leader inside Oracle
- Earlier he worked on kexec, kdump, makedumpfile, crash tool and memory hotplug development.



What we will talk about today?

- GRUB (GNU GRand Unified Bootloader)
- 24 years old bootloader
- Used by most of Linux distributions these days
- Boots almost everything leveraging most of available boot firmware in the world
- 90% written in C with 579k SLOC (including gnulib)
- In 3mdeb we use it in various ways and those use cases, and concerns related to, we would like present today



"minisummit" agenda

- "Intro" Piotr Król
- "Redundant GRUB2 env file" Maciej Pijanowski
- "TPM support in GRUB2 for legacy boot mode" Michał Żygowski
- "GRUB2 security features overview" Piotr Król
- "Python 3 support in GRUB2" Michał Żygowski
- "AMD TrenchBoot support in GRUB2" Piotr Król





