

ARM Ports BoF

Where are we now, what's coming?



arm

Steve McIntyre <93sam@debian.org> Debian/arm/Linaro

25th July 2019



Agenda

- Current ports status
- Builds and hardware
- Discussion
- Take notes in gobby please!
 - `gobby.debian.org`
 - `Debconf19/bof/arm-ports`



arm64

- Current port, first released with Jessie
- Working well
- More devices available now, more coming
- Real server hardware!
- Simple choice of kernel with DTB and/or ACPI



armhf

- Current port, first released with Wheezy
- Hard-float ABI, v7, VFPv3-D16
 - Standard for 32-bit Arm Linux distros
- armmp kernel & DTBs
 - Potentially massive set of supported devices
- UEFI...



armel

- Current port, first released with Lenny
- Soft-float ABI, ~~v4t~~-v5te
- Still supported upstream for most languages?
- Was initially planning to drop for Buster
 - Others have stepped up!



Builds and hardware

- Mostly relying on dev boards still for 32-bit **for now**:
 - Marvell Armada XP (v7)
 - Freescale imx53 (v7)
porter box
- Wider arm64 machine options
 - Seattle, X-Gene, ThunderX, Macchiato, Centriq, Synquacer, TaiShan, ...



Let's build A32 on arm64!



- Some arm64 machine won't run A32
 - Some will, but only userland
- Some issues found:
 - Alignment
 - #define mixups
 - ...
- Choices to make
 - Performance vs. fixups

Real servers!





Discussion

- What else can we be doing?
- What else should we be doing?



What else?

- More porters always welcome
- #debian-arm on irc.debian.org
- debian-arm@lists.debian.org



Thanks

The ARM logo, consisting of the lowercase letters 'arm' in a bold, blue, sans-serif font.



And all the community!

- Slides © 2019 Steve McIntyre <93sam@debian.org>
- Released under GPL v2 at <https://www.einval.com/~steve/talks/Debconf19-arm-BoF>