

FOSS on Mobile Devroom

FOSDEM • 31 January 2026





Welcome to the FOSS On Mobile devroom

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This devroom is about FOSS on Linux-based mobile devices

- The core Android Open Source Project (AOSP)
- Custom Android ROMs
- Linux mobile operating systems
- Free App stores
- Free Open Source apps and app ecosystems
- Hardware, kernel enablement, etc.

We aim to bring together mobile app developers, OEMs, and custom ROM builders to maintain and foster the ecosystem

State of FOSS on Mobile

Chris Simmonds & David Llewellyn-Jones & Romain Hunault

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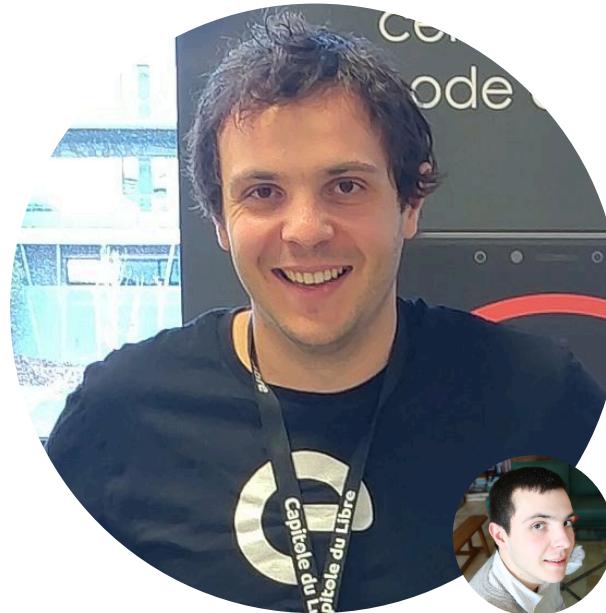
State of FOSS on Mobile

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Chris Simmonds

2net.co.uk



Romain Hunault

murena.com



David Llewellyn-Jones

flypig.co.uk



The State of AOSP



Why AOSP is important

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AOSP is **Open Source**: Apache 2.0 license (and other permissive licenses)

AOSP is important to many 1000's of developers

- OEMs of phones, cars, TVs
- the developers of custom ROMs
- developers working on small scale projects

c. 3 billion devices depend on AOSP

- not just phones, tablets, TVs and cars
- Embedded Android is inside many products: gym equipment (e.g. Peloton), point of sale, digital advertising, and more



- Good news: Google fund the development of AOSP
- Bad news: Google control commits to AOSP, and do not encourage contributions from outside of Google and its partners
- Google have always been ambivalent about community
- Andy Rubin at Google I/O in 2011:
“Open source is different from a community-driven project. We’re light on community”

<https://techcrunch.com/2011/05/10/andy-rubin-on-androids-openness-light-on-community-heavy-on-open-source/>



Changes to AOSP releases in 2025

Google seems to be becoming even less interested in community in 2025

- **March 2025:** No more main branch; end of AOSP-first development
Previously, the main branch had regular updates, especially from “AOSP-first” projects such as Bionic, Bluetooth, Cuttlefish, Virtualization. Now all development is on private branches

<https://aosp-devs.org/2025/04/14/changes-in-aosp-development.html>

- **June 2025:** Pixel support dropped from Android 16
Making it harder for ROM developers to support Pixel hardware, but also taking away a template of how to configure Android

<https://aosp-devs.org/2025/07/08/pixel-support-dropped-from-Android16.html>



Changes to AOSP releases in 2025

- **July 2025:** Internal branches only made public four times a year: major release, QPR1, QPR2 and QPR3
- **January 2026:** AOSP releases now twice a year: major release (Q2) and QPR2 (Q4)

Header on each page at <https://source.android.com/> since early January:

"Effective in 2026, to align with our trunk stable development model and ensure platform stability for the ecosystem, we will publish source code to AOSP in Q2 and Q4. For building and contributing to AOSP, we recommend utilizing android-latest-release instead of aosp-main. The android-latest-release manifest branch will always reference the most recent release pushed to AOSP"



The State of Android Applications



Android applications

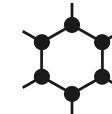
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1. Google's Developer Registration
2. Play Integrity and app compatibility





1. CalyxOS
2. /e/OS
3. GrapheneOS
4. iodéOS
5. LineageOS
6. And many others



iodé





1. Brax3 (iodéOS)
2. Fairphone 6 (/e/OS)
3. Punkt MC02 (AphyOS)
4. Shiftphone 8 (/e/OS)
5. Volla Tablet (Volla OS, /e/OS)
6. hundreds of models supported by the community



What's cooking?

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1. Samsung may (has?) kill bootloader unlocking
2. 2G/3G network shutdown
3. More open hardware
4. Mainline driver support



source



The State of Mobile Linux



The Landscape

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1. Distributions

1. Droidian
2. FuriOS
3. Mobian
4. postmarketOS
5. Sailfish OS
6. Ubuntu Touch

1. Shells

1. Gnome Shell
2. Phosh
3. Lipstick
4. Lomiri
5. Plasma Mobile
6. Sxmo



1. Debian on libhybris and Halium
2. Droidian 101 released September
3. Debian Forky, Gnome 48
4. Captive portal, MPRIS lockscreen controls, Waydroid, Android 13





1. FuriOS 14.0.1 released January
2. Debian Forky, Gnome 49
3. Monthly updates
4. Switched from FLX1 to FLXS1
5. More RAM, kill switches
6. Phosh





1. Debian for Mobile Mainline
2. Mobian Trixie released October
3. Phosh 46.0
4. Plasma Mobile 6.3





1. Mainline Linux with broad hardware support
2. Biannual release, latest 25.12
3. Alpine Linux 3.23
4. Integrated systemd in 25.06
5. Improved Firefox user interface
6. Funding from donations and NLNet
7. New Code of Conduct team





1. 5.0.0.72 released in October
2. Five updates during 2025
3. AppSupport, browser
4. WireGuard support, Landscape views, Call blocking





1. Lomiri user interface
2. 24.04 1.1 release December
3. VoLTE support being rolled out
4. Theme improvements, data encryption





More besides

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- Maemo Leste
- Nemo Mobile
- AsteroidOS
- Sxmo
- *[insert your project here]*



- Share and coordinate
- Promote community efforts
- Pool resources



AOSP

- aosp-devs: <https://aosp-devs.org/>. Discussion, blogs, newsletter
- The AOSP and AAOS Meetup: <https://aospandaos.github.io/>. Bimonthly on-line talks and chat

Android Applications

- Keep Android Open: <https://keepandroidopen.org/>

Linux on Mobile

- LINMOB.net: <https://linmob.net/>