Droidian

Running Debian on Android Phones

Erik Inkinen

Volla Community Days 2021

About me

- My name is Erik Inkinen
- Going to upper secondary school in Finland
- Interested in computers and open source software
- A member of the Droidian team
  - Other team members: Eugenio Paolantonio, Giuseppe Corti, Erfan Abdi
- A fan of the GNOME desktop

Droidian and its mission

- Running Debian on Android phones

- Bringing phosh on those devices

- As it is easier to adapt Halium on a new device than to run mainline kernel on that device, Droidian may provide Mobian-like environment on a wider range of devices

Overview of technologies used by Droidian

- Halium and libhybris
- The modem stack: oFono and oFono2MM
- The UI/UX: phosh and GNOME apps

The base

- Halium and libhybris let us use Android drivers
  - They are used also in Ubuntu Touch
- Debian serves as the base distribution
  - Debian is a popular distribution

The modem stack

- oFono is used as in other Halium based distributions
  - oFono talks to Android RILd
- oFono2MM is developed by us in order to let ModemManager dependent applications use the modem
  - However, calls are handled directly through oFono

The UI/UX

- phoc/phosh
  - phoc is a Wayland compositor written using wlroots
  - phosh is a mobile shell using GTK as a widget library
- GNOME stack
  - The UI/UX is based on the GNOME stack
  - The core applications are the same as on the GNOME desktop
    - A familiar and unified UX for GNOME users

Recap

- Easy to port thanks to Halium 9.0 and soon Halium 10
- Based on Debian
- UX is familiar to GNOME users

Thank You

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