

# The Linux Phone App Ecosystem

Apps for Sailfish OS, Ubuntu Touch and  
their new contenders

# This could be so simple!

- Install Waydroid on your distribution  
<https://docs.waydro.id/usage/install-on-desktops>
- Install F-Droid from [f-droid.org](https://f-droid.org)
- Maybe install Aurora Store or go with Google Apps
- Have all the apps!\*

\* well, almost, issues with BT, Cam, Safety Net and so on would remain

See also: <https://blogs.gnome.org/jdressler/2023/12/20/a-dive-into-jolla-appsupport/>

# Not so fast... AGENDA

- whoami / history
- What's not in this Talk
- Apps on Sailfish OS
- Apps on Ubuntu Touch
- New contenders ([LinuxPhoneApps.org](http://LinuxPhoneApps.org))
- Highlights
- Gaps and Challenges
- Q&A



About me

LIUNMOE

About me

## Posts

Jan 28, 2024

### [Weekly GNU-like Mobile Linux Update \(04/2024\): Ubuntu Touch OTA 4 + FOSDEM preparations](#)

With [FOSDEM 2024](#) approaching, let's have another roundup: Ubuntu Touch 20.04 OTA 4, gmobile 0.0.5, an update on progress in Nemo Mobile (plus a Qt6-based image to try out), a healthy "Worth Reading" section, another episode of the postmarketOS podcast and sadly not much of a video section.

Also, one ask: [Please part-take in this pseudo-survey - thank you!](#)

Jan 21, 2024

### [Weekly GNU-like Mobile Linux Update \(03/2024\): OG PinePhone WiFi Progress](#)

Another week, another update: The RTW8723CS driver progresses nicely, a Year in Review post by Mobian, releases of libdng and libmegapixels, Sailfish OS Community News, another Ubuntu Touch Q&A and more.

Jan 14, 2024

### [Weekly GNU-like Mobile Linux Update \(02/2024\): Plasma 6 rc1, Phosh 0.35.1, and WiFi/BT progress](#)

Aside from progress regarding the next releases of major desktop environments (that always provide some goodies for mobile), this week saw improvements on WiFi/BT things on Sailfish OS, but also some promising work towards a mainline-able rtl8723cs driver. the infamous WiFi/BT solution of the OG

<https://linmob.net>

# Hello World!

Sep 24, 2007 • [peter](#) • [internal shortform](#)


This is my first post—I am a german guy, who likes linux-powered mobile phones a lot and due to this, some of these phones will be the subject here.

I had a blog over at some other place before, but it is gone now, unfortunately. If the hoster sends me my old texts, I will import them in here.

*Addendum, April 15th, 2021: This original blog had been hosted at [Motorolafans.com](#), a forum where Motorola's Linux phones were discussed. Their blog feature just disappeared, and the contents could never be recovered. Looking back at my early posts, this was not a huge loss.*

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 Share this post on [Twitter](#), [Reddit](#), [Hacker News](#), [LinkedIn](#) or via [Email](#).

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# How it started

# I found this

## MGLApps






### Mobile GNU/Linux Apps

Mobile GNU/Linux Apps (short: MGLApps) is a list of (potential) applications for usage on mobile devices running GNU/Linux, having small(er) screens and touch input (e.g. smartphones, tablets, convertibles).

Project repository: <https://framagit.org/mglapps/mglapps.frama.io>

Adjust table

Search:

name	category	summary	mobile compatibility	repository	framework
 1010! Klooni	game	"libGDX game based on the original 1010!"		<a href="https://github.com/LonamiWebs/Kloon1010">https://github.com/LonamiWebs/Kloon1010</a>	libGDX
 Alligator	feed reader	"Alligator is a convergent RSS/Atom feed reader."	0	<a href="https://invent.kde.org/plasma-mobile/alligator">https://invent.kde.org/plasma-mobile/alligator</a>	Kirigami
 Angelfish Webbrowser	browser	"experimental webbrowser"	0	<a href="https://invent.kde.org/jbbgameich/plasma-angelfish">https://invent.kde.org/jbbgameich/plasma-angelfish</a>	
 Apple Flinger	game	"Funny single- and multiplayer game for Android - Use a slingshot to shoot with apples. Very challenging and addictive."		<a href="https://gitlab.com/ar-/apple-flinger">https://gitlab.com/ar-/apple-flinger</a>	libGDX
 Authenticator	2FA code generator	"Two-factor authentication code generator for GNOME. Created with love using Python and GTK+."	0	<a href="https://gitlab.gnome.org/World/Authenticator">https://gitlab.gnome.org/World/Authenticator</a>	GTK, libhandy
 Banking	banking	"Banking application for small screens"		<a href="https://gitlab.com/tabos/">https://gitlab.com/tabos/</a>	GTK

<https://mglapps.frama.io>



# and forked it

LinuxPhoneApps

Apps Games Docs Blog

## Welcome!

LinuxPhoneApps.org is an App Directory that lists apps for Linux Phones like the PinePhone or Librem 5, that run Linux distributions which do not have a proper (de)centralized app store yet.

Apps

Games

Theme and Code: [MIT](#). Content: [CC-BY-SA 4.0](#). State: [beta](#)

## Find apps or games by ...

[Service](#) [Category](#) [Framework](#) [Mobile fit](#) [Distribution](#) [+]

### Latest Apps

- [Notae](#)
- [Merkuro Mail](#)
- [MarkNote](#)
- [Licentia](#)
- [KleverNotes](#)

### Latest Games

- [GNOME Sudoku](#)
- [Parolottero](#)
- [Blurple](#)
- [Shootin Stars](#)
- [Maelstrom](#)

### Latest Blogs

- [New Apps of LinuxPhoneApps.org...](#)
- [New Apps of LinuxPhoneApps.org...](#)
- [Better packaging information: ...](#)

### For Users

Find out whether there's an app for what you would like or need to do, and how to get it!

### For Distributions and Package maintainers

Find software to package or

### For developers

Help developers to find efforts for similar apps, to join a project, start something similar or find links to further documentation.

<https://linuxphoneapps.org/>

# Motivation

*The space is a tiny niche, that may or not be stronger due to being heavily fragmented.*

## Goals

- encouraging more collaboration
- learning from what other projects do
- *personal*: spending some time with Ubuntu Touch and Sailfish OS ;-)

# Assumptions

- apps for open standards should be implementable
- apps for services with free API access too
- apps for services that have an api should be doable

# Sailfish OS

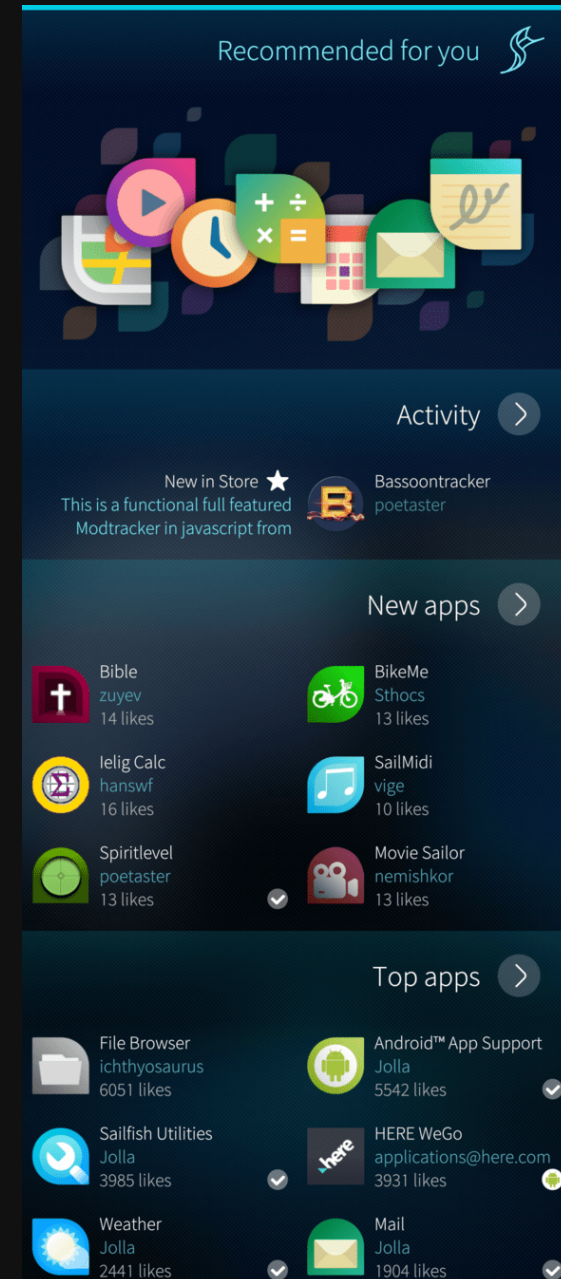
- risen from the ashes of Nokia and Meego
- 2013: Jolla Phone
- Wayland, btrfs, systemd - in 2013
- latest release: 4.5.0.24 (Struven Ketju) / 12 September 2023
- Sailfish X - buy license, bring a Sony device
- Android App Support

*// Open source with added closed-source components and extensions of third parties which can be of other licences as well*

[https://en.wikipedia.org/wiki/Sailfish\\_OS](https://en.wikipedia.org/wiki/Sailfish_OS)

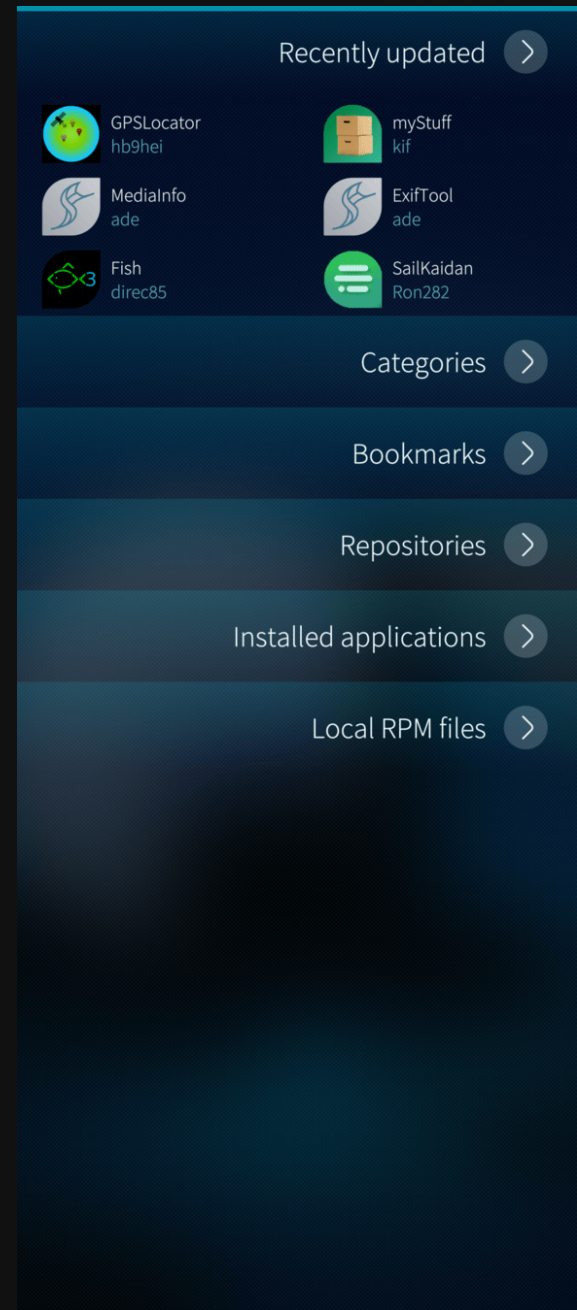
# Jolla Store

- requires Jolla account
- no for pay apps
- no web interface, did not count



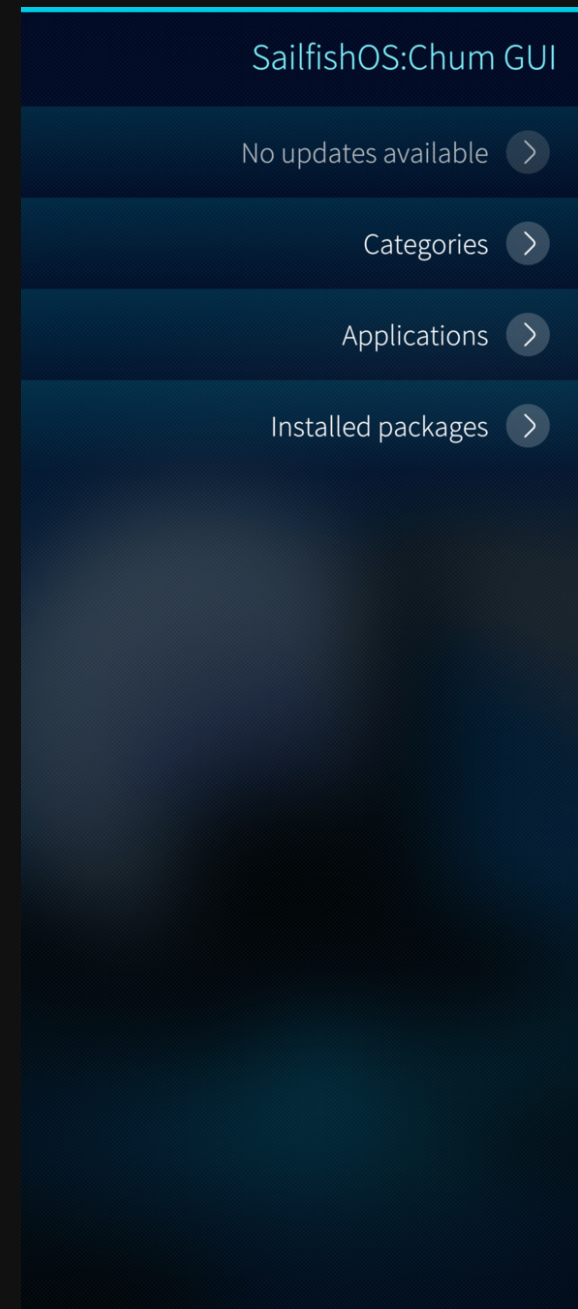
# openrepos.net

- Storeman frontend
- no for pay apps
- also list apps for other projects
- ~1800 apps listed for Sailfish



# Chum

- the newest contender
- also has a [web frontend](#)
- no for pay apps
- ~170 apps listed for Sailfish
- including [Kirigami](#) apps!



# Sailfish Highlights

According to our poll,

- [Pure Maps](#),
- [Whisperfish](#) (Signal client),
- [Fernschreiber](#) (Telegram),
- [Sailfish Connect](#)

are highlights!

Also, with [Contrac](#), SFOS had the only #MobileLinux Covid19 contact tracing app.



# Ubuntu Touch

- envisioned in 2011
- 2015: bq Aquaris E4.5
- Mir, Upstart, Unity 8
- dropped by Canonical and continued by UBports in April 2017. Unity 8 is now Lomiri, Mir does Wayland too now and 20.04 uses systemd
- latest release: 20.04 OTA 4 / 30 January 2024

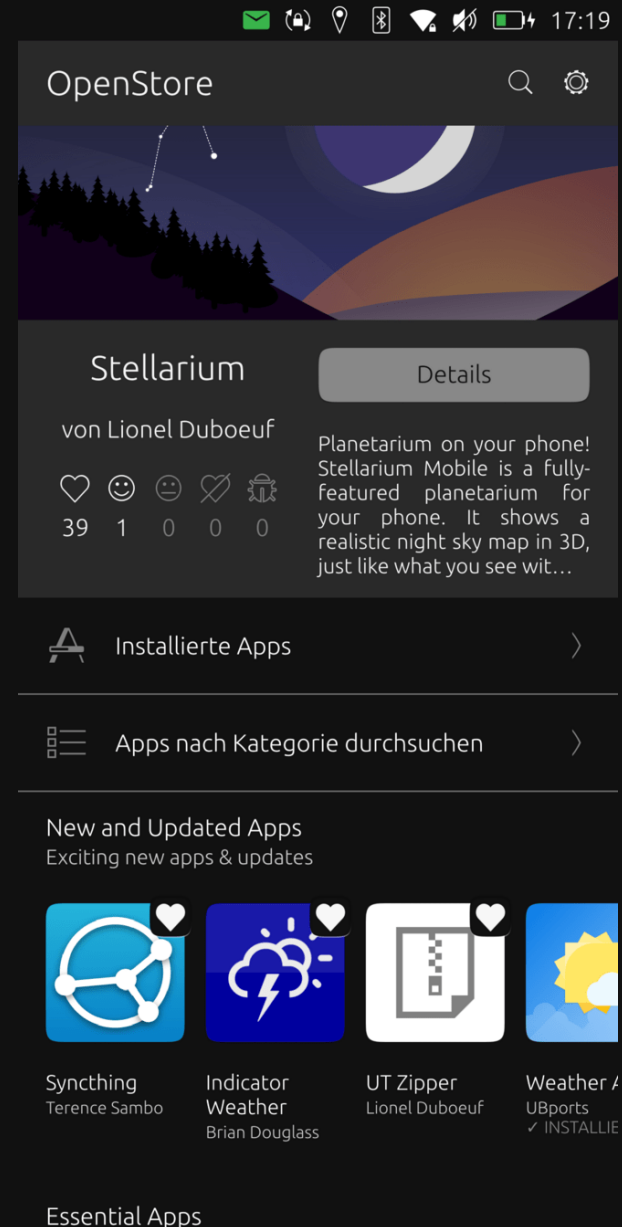
*“ Mark Shuttleworth announced on 31 October 2011 that by Ubuntu 14.04, the goal was that Ubuntu would support smartphones, tablets, smart TVs and other smart screens (such as car head units and smartwatches)*

[https://en.wikipedia.org/wiki/Ubuntu\\_Touch](https://en.wikipedia.org/wiki/Ubuntu_Touch)

# Open-Store

- <https://open-store.io/>
- App Count 16.04
  - Apps ~610
  - Web Apps ~210
- App Count 20.04
  - Apps ~210
  - Web Apps ~22

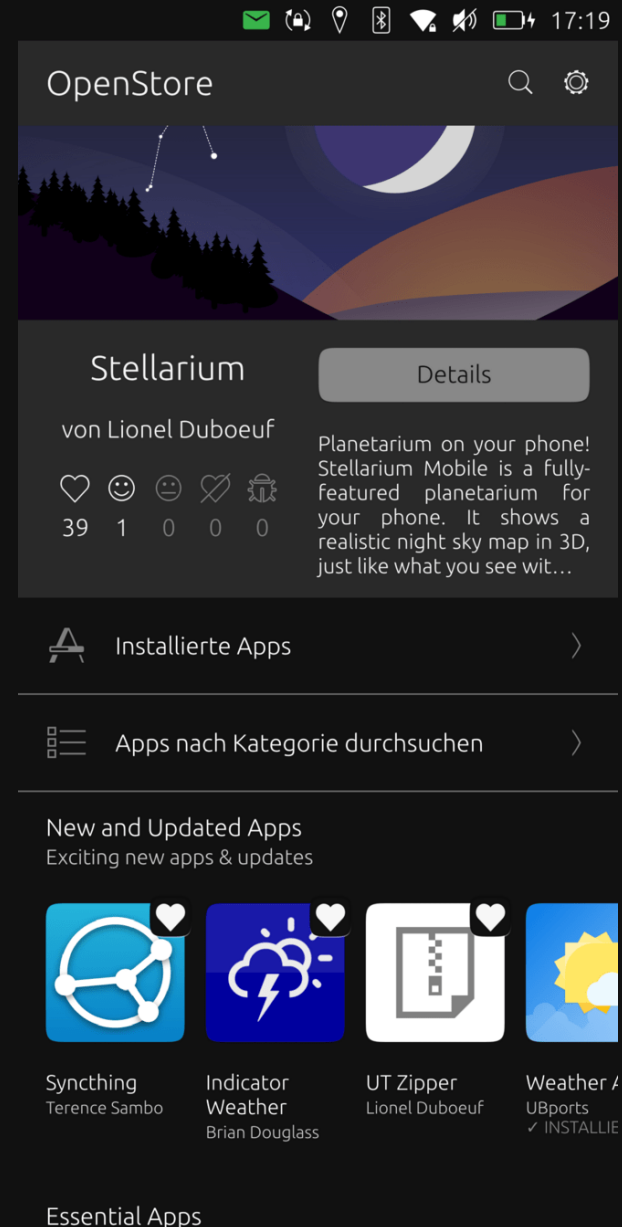
Numbers: Late January 2024



Essential Apps

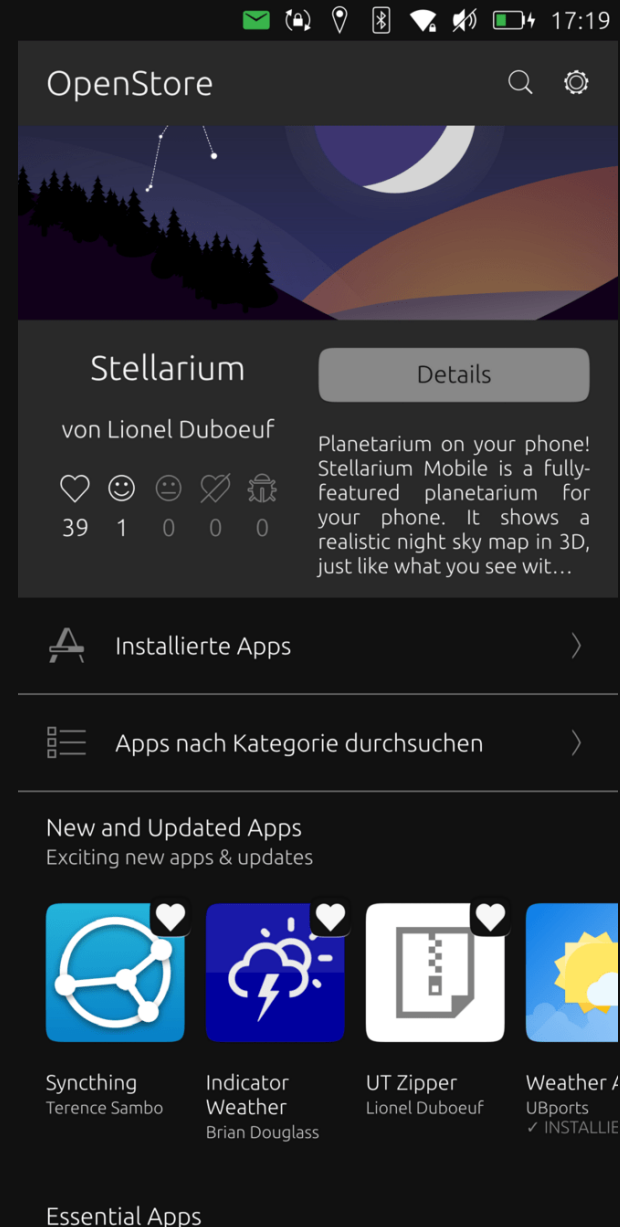
# Other ways to install apps

- Inside a Ubuntu container - **Libertine**
- this is mainly useful for tablets, as 16.04 and 20.04 contain few mobile friendly apps in their repositories
- **Snapz0r**: Install Snaps on Ubuntu Touch
- both: bring your own env ;-)



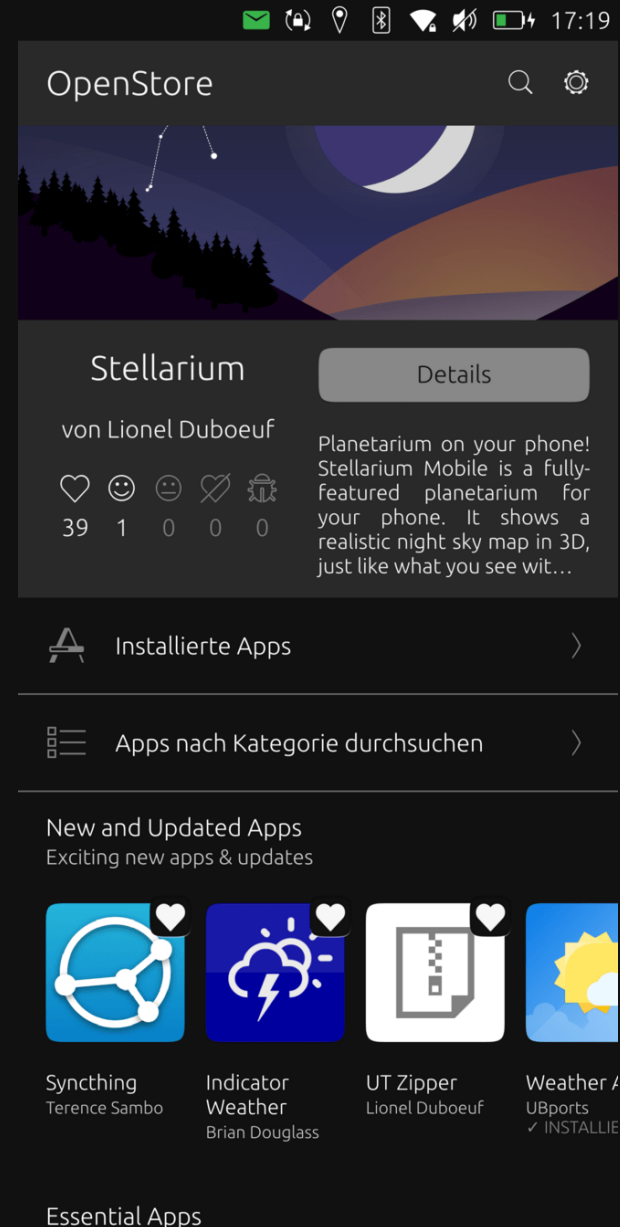
# Highlights

- [uMastonauts](#) (poll)
- [Webber](#) (web app creation)
- [Dekko](#) (E-Mail)
- [uNav](#) (navigation)



# More interesting apps

- [LinPhone](#) (16.04 only)
- [Fluffychat Flutter](#) (dito)
- [Scooter](#) (Bird and Nextbike)
- [Tesla app](#)
- [NoStrut](#) (only #LinuxMobile Nostr client, afaik)
- [Futify](#) (Spotify Premium client)

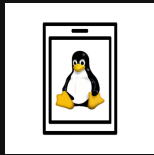


# Gaps (poll + from experience)

- [Matrix apps on 20.04](#) (beyond adaptations of Element Desktop and Cinny)
- [XMPP](https://conversejs.org/) beyond <https://conversejs.org/>
- (Desktop) Firefox for Ubuntu Touch (poll)



# New contenders



# New contenders

- 2017/2020 ff. Librem 5 / PinePhone
- lots of projects based on desktop distributions
- PureOS, postmarketOS, Mobian, Manjaro - to just name a fraction of what came up
- Main UIs: Plasma Mobile, Phosh, GNOME Shell Mobile
- No proper app store solution (ish)
- hence [LinuxPhoneApps.org](https://linuxphoneapps.org)

See <https://linmob.net/resources> for links.



# All Frameworks

The UI Frameworks apps listed use, alphabetically.

Cairo (2)

Clutter (1)

Electron (8)

fluid (7)

Flutter (5)

Godot (1)

granite (4)

GTK3 (128)

GTK4 (166)

iced (1)

Kirigami (114)

libadwaita (156)

libGDX (15)

libhandy (66)

MauiKit (12)

PyQt6 (1)

QtQuick (79)

QtQuick 6 (1)

QtWidgets (9)

ReactXP (1)

SDL (6)

SDL2 (12)

Silica (3)

Tk (4)

UbuntuComponents (1)

Web technologies (1)

WxWidgets (2)

xapps (1)

<https://linuxphoneapps.org/frameworks/>

# All Programming Languages

C (77)

Clojure (1)

C++ (151)

Crystal (2)

Dart (5)

Go (5)

HTML (1)

Java (1)

JavaScript (29)

Lua (2)

Objective-C (1)

Python (123)

QML (143)

Rust (63)

Shell (1)

Tcl (4)

TypeScript (5)

Vala (46)

Vue (1)

XSLT (1)

Zig (3)

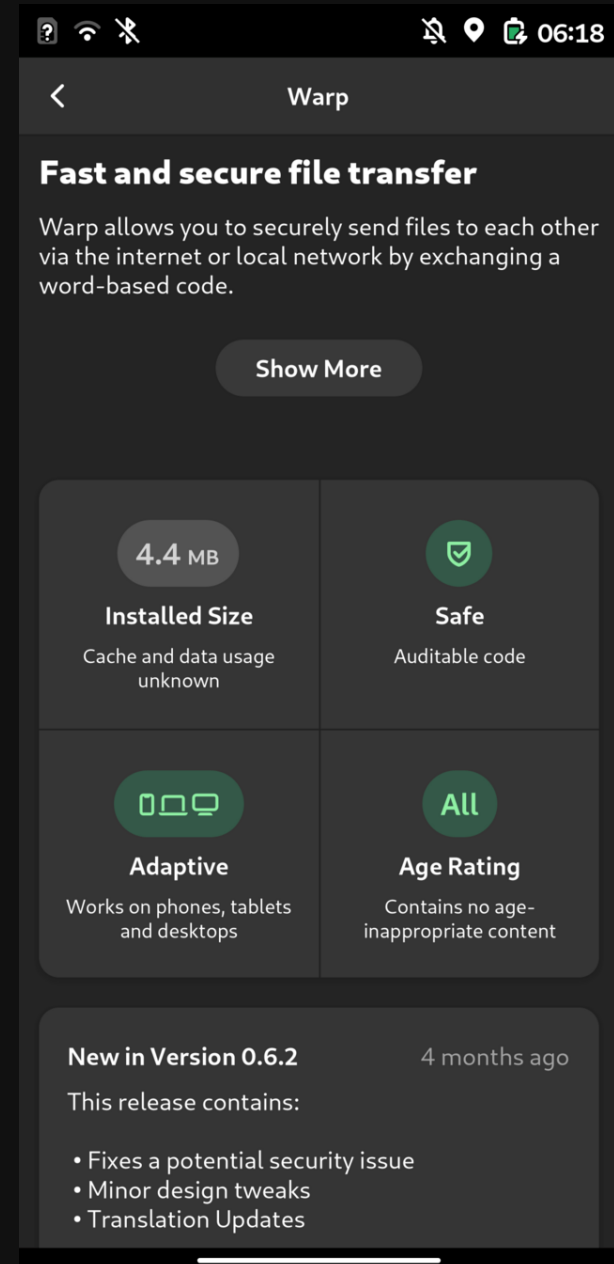
<https://linuxphoneapps.org/programming-languages/>

# GNOME Software

- Can show whether apps are adaptive according to metadata
- [PureOS Store](#) (fork) has toggle to only show adaptive apps

UI: GTK4 / libadwaita

(LPA.org lists 156 [libadwaita apps](#) + 66 [libhandy apps](#))



# KDE Discover

Does not do this (yet.)

Hence no screenshot ;-)

But: It uses Kirigami and is adaptive!

(LPA.org lists 114 [Kirigami apps.](#))

# AppStream Metadata

- specified by FreeDesktop.org
- may seem boring, but is super important
- can contain
  - licensing, descriptions, release notes
  - form factor information
  - ...
- [Blog post on Form factors](#)
- [AppStream Documentation](#)
- [Metainfo Creator](#)

# Highlights (Plasma)

- [Phone apps](#)
- [Kasts](#) - feature-rich podcast app
- [Itinerary](#) (travel companion)
- [Angelfish](#) (mobile web browser)
- [Tokodon](#) (Fediverse client)
- [Pure Maps](#) (Kirigami)

# Highlights (GNOME)

- [Chats/Calls](#) (duh)
- [Tuba](#) (Fediverse Client)
- [Tangram](#) (Web Apps)
- [Dino](#) (XMPP)
- [Fractal](#) (Matrix)
- [Railway](#)
- [Wike](#) (Wikipedia)
- [Spot](#) (Spotify Premium)
- [Flatseal](#) (Flatpak permissions and env mgmt)

# Highlights (Other)

- [Nheko](#) (Matrix)
- [Fluffychat](#) (Matrix)



# Special: Apps that run everywhere

- Pure Maps
- Amazfish
- Kaidan\*

Generally, building a Qt app with QtQuick Components 2 might lead to something portable, but what do I know ;-)

# Special: Apps that run everywhere

- Flutter?

\*including legacy platforms (iOS/Android)

See next talk.

# Current gaps (Poll)

- Poll results
  - WhatsApp
  - Banking apps (likely various), NFC payments
  - Maps/Navigation (Organic Maps/osmAnd/Waze)
  - decent E-Mail app (Geary is close)
  - apps for Electric vehicles
  - apps for new mobility (Scooters and such)
  - camera app working on all devices
  - crypto-currency wallets

# More Current gaps

- Attention grabbing Social Media
- Office clients ([Libre Office](#))
- ...

Use these pages to only see apps and games that are packaged for your distribution and/or are available on Snapcraft or Flathub.

[Alpine 3.18](#) (149)

[Alpine 3.19](#) (158)

[Alpine edge](#) (197)

[Arch](#) (132)

[Arch Linux ARM aarch64](#) (129)

[AUR](#) (344)

[Debian 11](#) (101)

[Debian 12](#) (119)

[Debian 13](#) (133)

[Debian experimental](#) (5)

[Debian unstable](#) (141)

[Devuan 4.0](#) (101)

[Devuan unstable](#) (141)

[Fedora 38](#) (132)

[Fedora 39](#) (134)

[Fedora rawhide](#) (134)

[Flathub](#) (270)

[Gentoo](#) (90)

[GNU Guix](#) (96)

[Manjaro stable](#) (147)

[Manjaro unstable](#) (147)

[Nix stable 23.05](#) (207)

[Nix stable 23.11](#) (218)

[Nix unstable](#) (220)

[openSUSE Tumbleweed](#) (121)

[postmarketOS master](#) (1)

[PureOS landing](#) (125)

[Snapcraft](#) (15)

<https://linuxphoneapps.org/packaged-in/>

# Frequent annoyances

- Please, if you maintain an app, do release it some point
- Flutter apps built only for x86\_64 Linux
- Electron apps built only for x86\_64 Linux (WTF, Signal?)
- Generally apps only built for x86\_64 Linux!

# Future Challenges

- Application of more and more public and private services
- E.g., in Germany:
  - DHL Packstation (in 2023)
  - BahnCard (soon)

# Solution?

- virtualized Android
- reverse engineer all the things ;-)

AND / OR

- We need to push government to keep important services accessible to people without smartphones by just two platform vendors
  - technical solution: The Web.



# Stuff I would like to see

- More cross-project collaboration in the app space
- Better App Metadata
- Make access to non-distro app sources easier in distributions
- Donation nagging in other App install things
- A bug tracker like Mozilla's **Platform Tilt**
- Help with [LinuxPhoneApps.org](http://LinuxPhoneApps.org) ;-)

# Conclusions

- I hope this wasn't too overwhelming or boring
- There may be more apps, than you'd think
- Regarding initial Assumptions: Nope, people just scratch their itch :-)

# Thank you!

- <https://linuxphoneapps.org/>
- [fosdem-talk@linmob.net](mailto:fosdem-talk@linmob.net)
- <https://linuxrocks.online/@linuxphoneapps>

and, if you want to contribute

- <https://framagit.org/linuxphoneapps/linuxphoneapps.frama.io/-/issues>
- <https://lists.sr.ht/~linuxphoneapps>
- [https://linuxphoneapps.org/lpa\\_helper.html](https://linuxphoneapps.org/lpa_helper.html)

Q&A

# There's more

Here are a few more long-lived Linux Mobile Projects that were not mentioned in this talk:

- [Maemo Leste](#)
- [Nemo Mobile](#)
- [Lune OS](#)

# Poll results

Find them at  
<https://linuxrocks.online/@linuxphoneapps/111796292510471036>

