

SHR

Free telephony by the community to the community.

Lukas Märdian

lukasmaerdian@gmail.com

Table of Contents

- A bit of History...
- What is SHR?
- Supported Devices
- How does it work?
 - OpenEmbedded/Yocto
 - FreeSmartphone.Org
 - Phonefsod & Phoneuid
- Problems
- Advantages

A bit of History...

- 2007 – Openmoko Inc. releases the Openmoko 1973
- 25 June 2008 – Openmoko Neo Freerunner
- Several versions of the OS: 2007.1, 2007.2, 2008, 2009
- Openmoko Inc. funds FSO development for OS version om2009
- 2 April 2009 – Openmoko cancels future planned hardware devices (GTA03)
- Several alternative community distros appear: FDOM, QtMoko, SHR, Hackable:1, Debian

What is SHR?

„Stable Hybrid Release“

- GNU/Linux distribution for embedded systems
- Driven by the community
- OpenEmbedded/Yocto based
- Integration of already existent free subsystems
 - Linux, Xorg, DBus, opkg, bluez, alsa
- Uses the FreeSmartphone.Org middleware

What is SHR? (2)

- Get it:
 - <http://shr-project.org> – Project
 - <http://build.shr-project.org> – Prebuild Images
- Which Version to choose?
 - shr-testing, shr-testing2011.1, shr-unstable
→ shr-core!
 - aurora

Supported Devices

- Openmoko Neo FreeRunner, 1973 (GTA01/02)
- Goldelico Phoenix (GTA04)
- Nokia N900
- HP|Palm Pre, Pre Plus, Pre 2
- Google Nexus (One, S, G1)

<http://shr-project.org/trac/wiki/Devices>

<http://wiki.freesmartphone.org/index.php/HardwareComparison>

Supported Devices (2)



How does it work?

- OpenEmbedded/Yocto (OE)
 - oe-core, meta-oe, meta-smartphone
- FreeSmartphone.Org (FSO)
- Phonefsod & Phoneuid (SHR)
- Enlightenment Foundation Libraries (EFL)
- Vala, Python, C

OpenEmbedded/Yocto

„OpenEmbedded offers a best-in-class cross-compile environment.

It allows developers to create a complete Linux Distribution for embedded systems.”¹

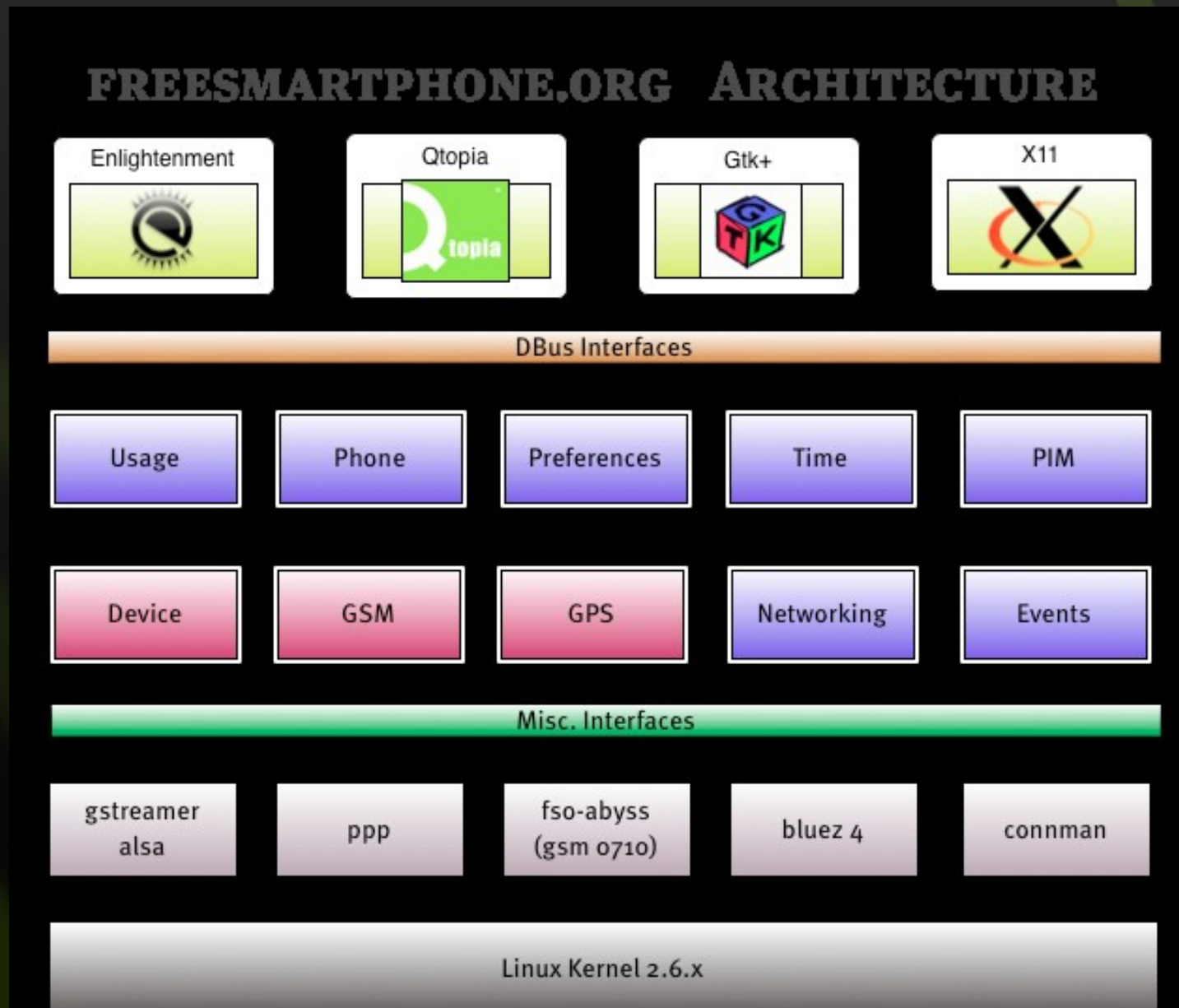
- <http://www.openembedded.org>¹
- <http://www.yoctoproject.org>
- Formed by:
 - Set of layers / recipes
 - bitbake

FreeSmartphone.Org²

„FreeSmartphone.Org is a modern service-based middleware platform for Linux-based embedded systems”²

- Set of DBus services
- API use cases / examples:
 - Request system resources (WiFi, GPS, Bt, CPU)
 - Administer sound profiles / scenarios
 - Listen to signals / events on the phone.
 - Send sms, configure GPRS/3G

FreeSmartphone.Org (2)

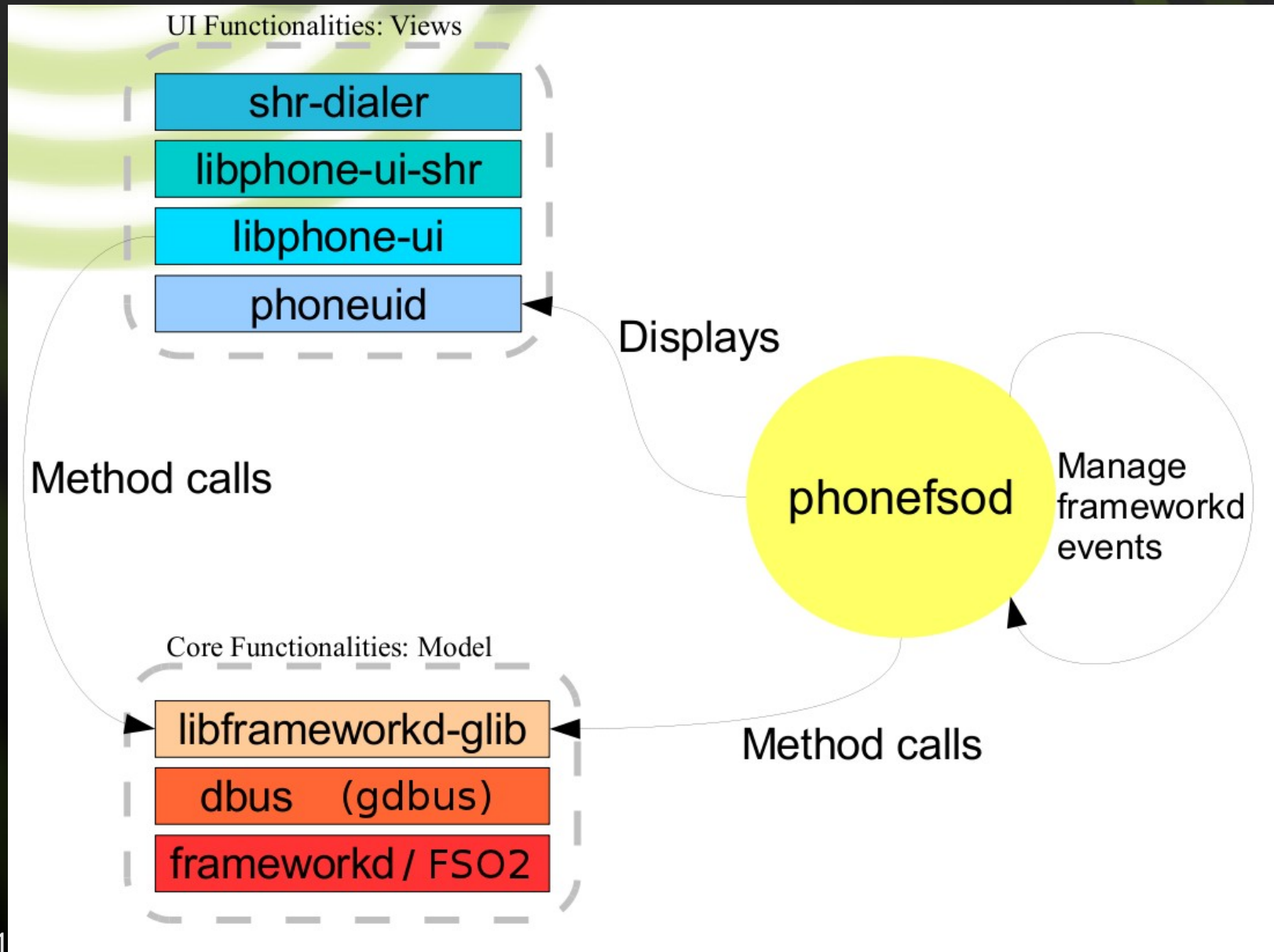


Phonofsod & Phoneuid

- SHR telephony stack
- Phonofsod: runs as FSO client
- Phoneuid: Manages graphical interfaces
 - Different domains: contacts, messages, dialer, settings, idle_screen
 - Can use different graphical toolkits for different domains.

FSO ↔ phonofsod ↔ phoneuid

Phonefsod & Phoneuid (2)



Problems

- Small community. Few developers (part time)
- Lots of work in lots of different scopes
- Little help by device manufacturers
 - new hope: Goldelico → GTA04 Project
- *User unfriendly*
- Use of bleeding edge technologies
→ unstable

Advantages

- Lots of work to do! Everyone can help!
- Active community, with lots of knowledge
- You'll learn a lot
- Usage of already existent technology:
 - Reuse of code and applications
 - If you already know linux it will be really easy for you to learn.
- You'll have total control over your devices!

Questions?!

- More information:
 - Web: <http://www.shr-project.org>
 - IRC: #openmoko-cdevel @ Freenode.net
 - Mailing Lists:
 - shr-user@lists.shr-project.org
 - shr-devel@lists.shr-project.org

Thank you for your attention!

