MeeGo connectivity framework

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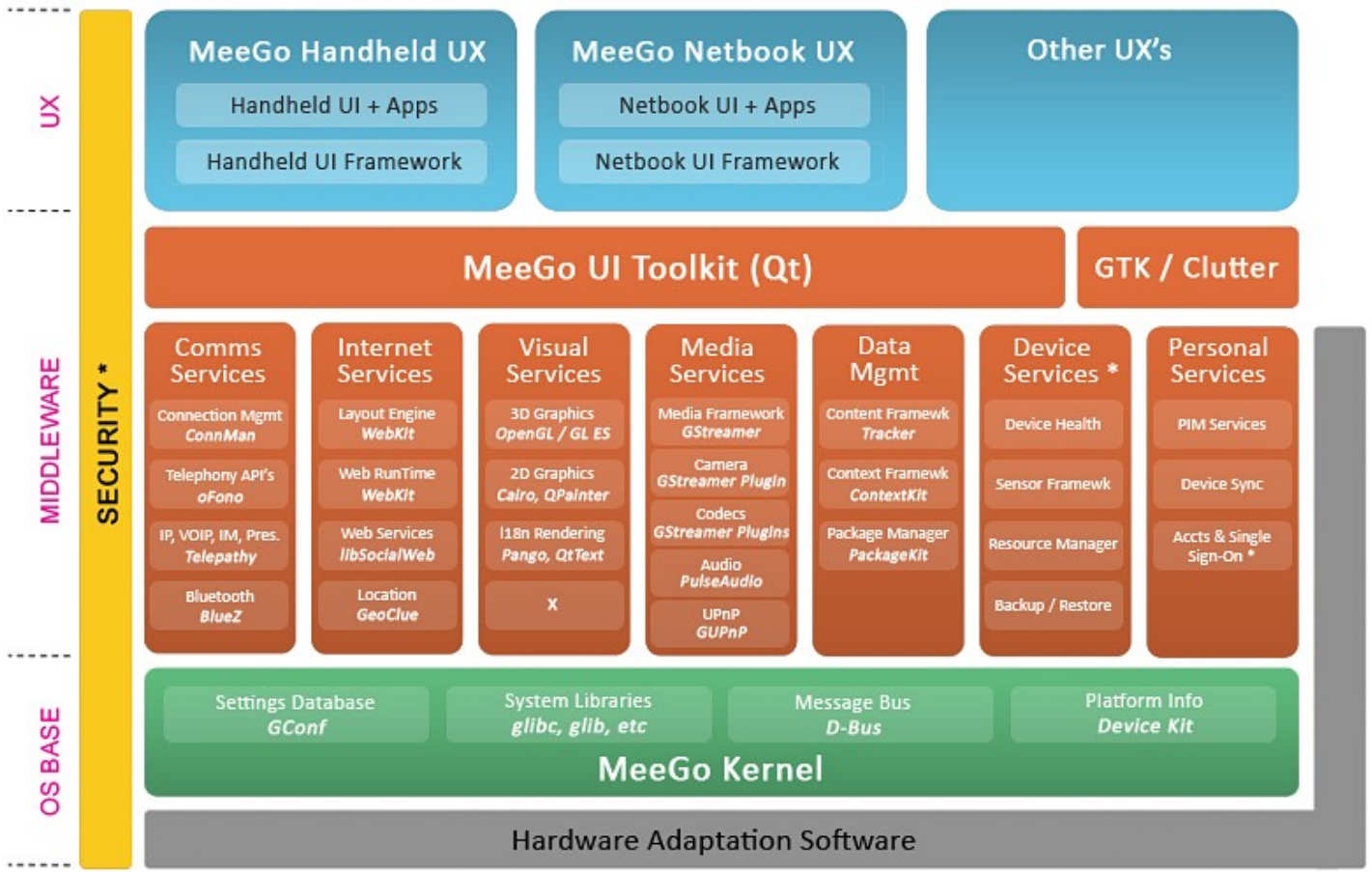
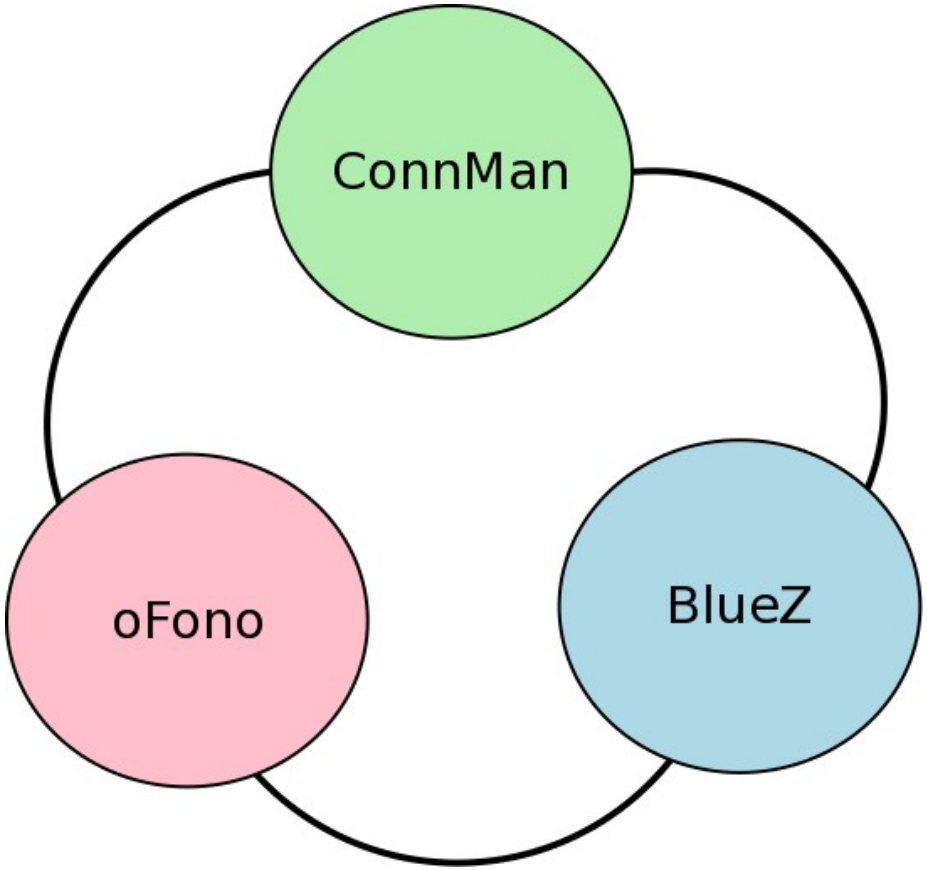
MeeGo architecture



Agenda

- Connection manager
  - Ethernet, WiFi, Bluetooth*, WiMAX, GSM/UMTS and GPS
- Bluetooth stack
  - Audio based profiles, telephony based profiles, network profiles, file transfer profiles etc.
  - High speed and low energy support
- Telephony stack
  - Voice calls, text messaging, network handling etc.

Three cornerstones

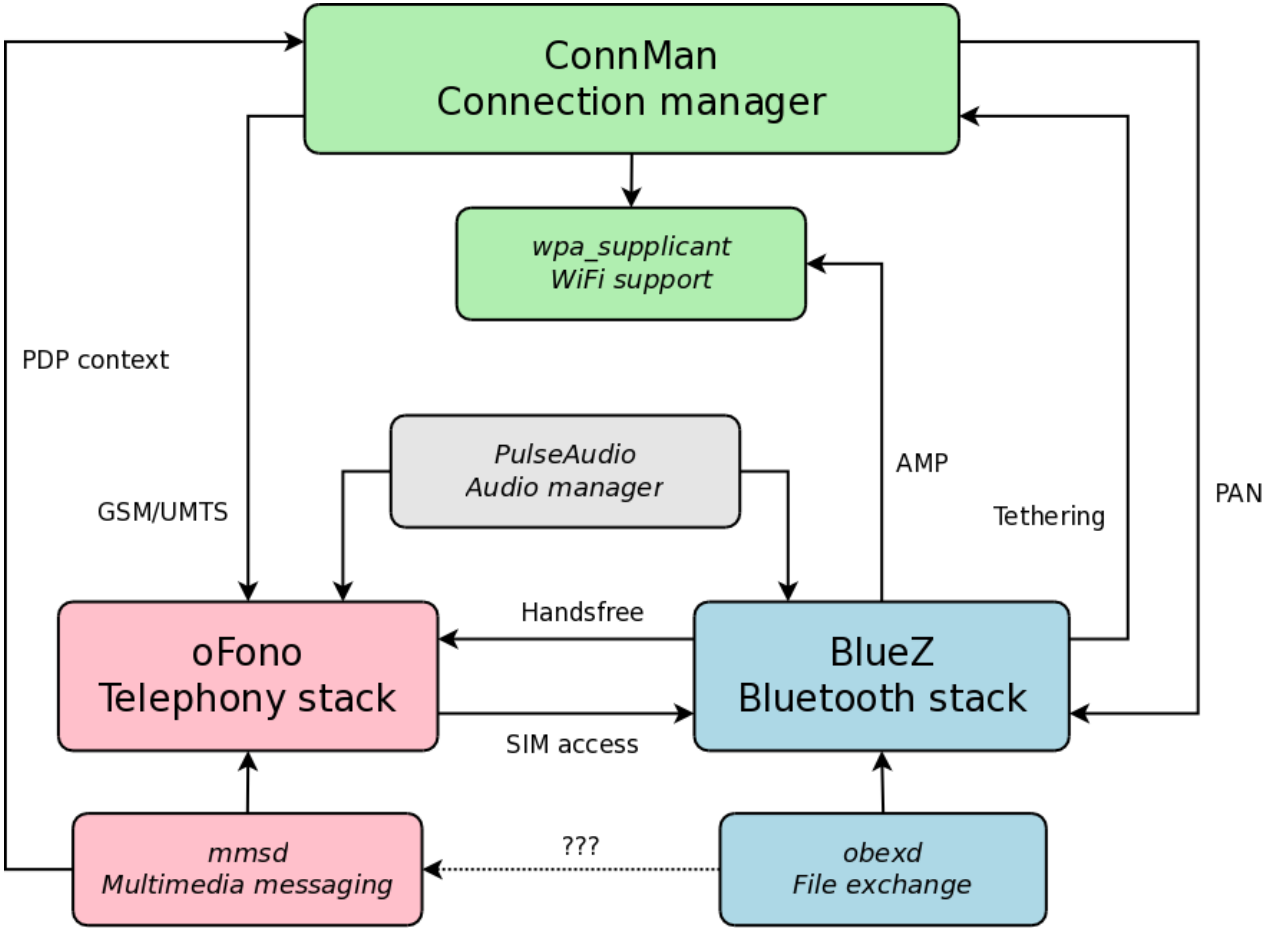


Tight interaction

- Similar user interfaces
- Functionality overlap in the projects

- All three projects rely on each other
- 100% open source software under GPL

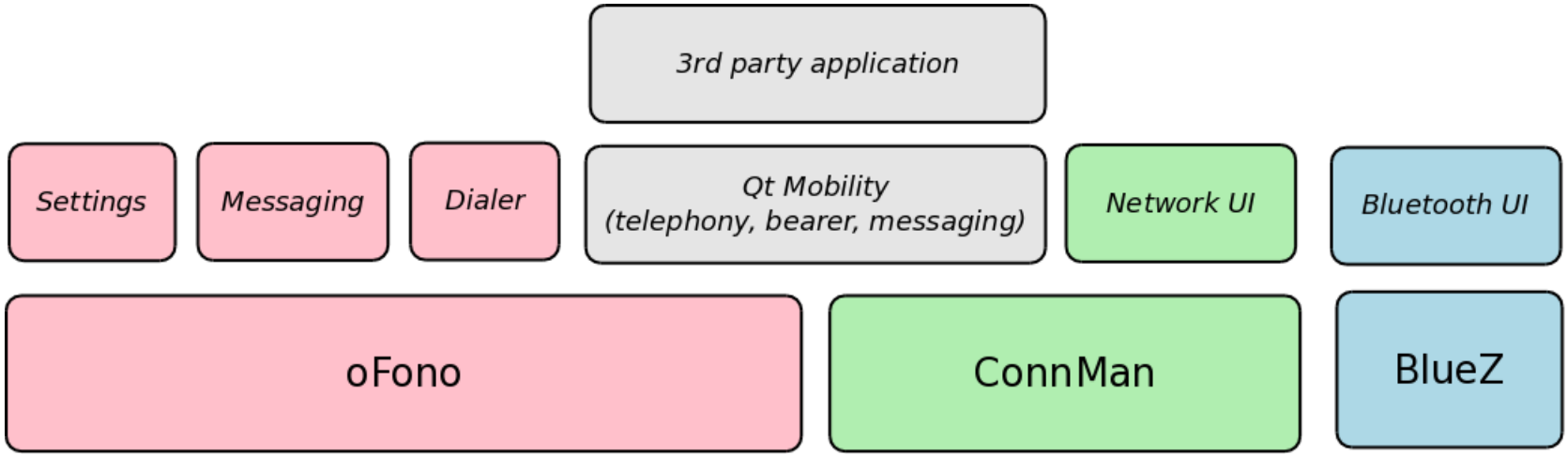
Architecture overview



Additional technologies

- Ethernet is handled by ConnMan
- WiMAX support requires Intel® WiMAX stack

Third party applications



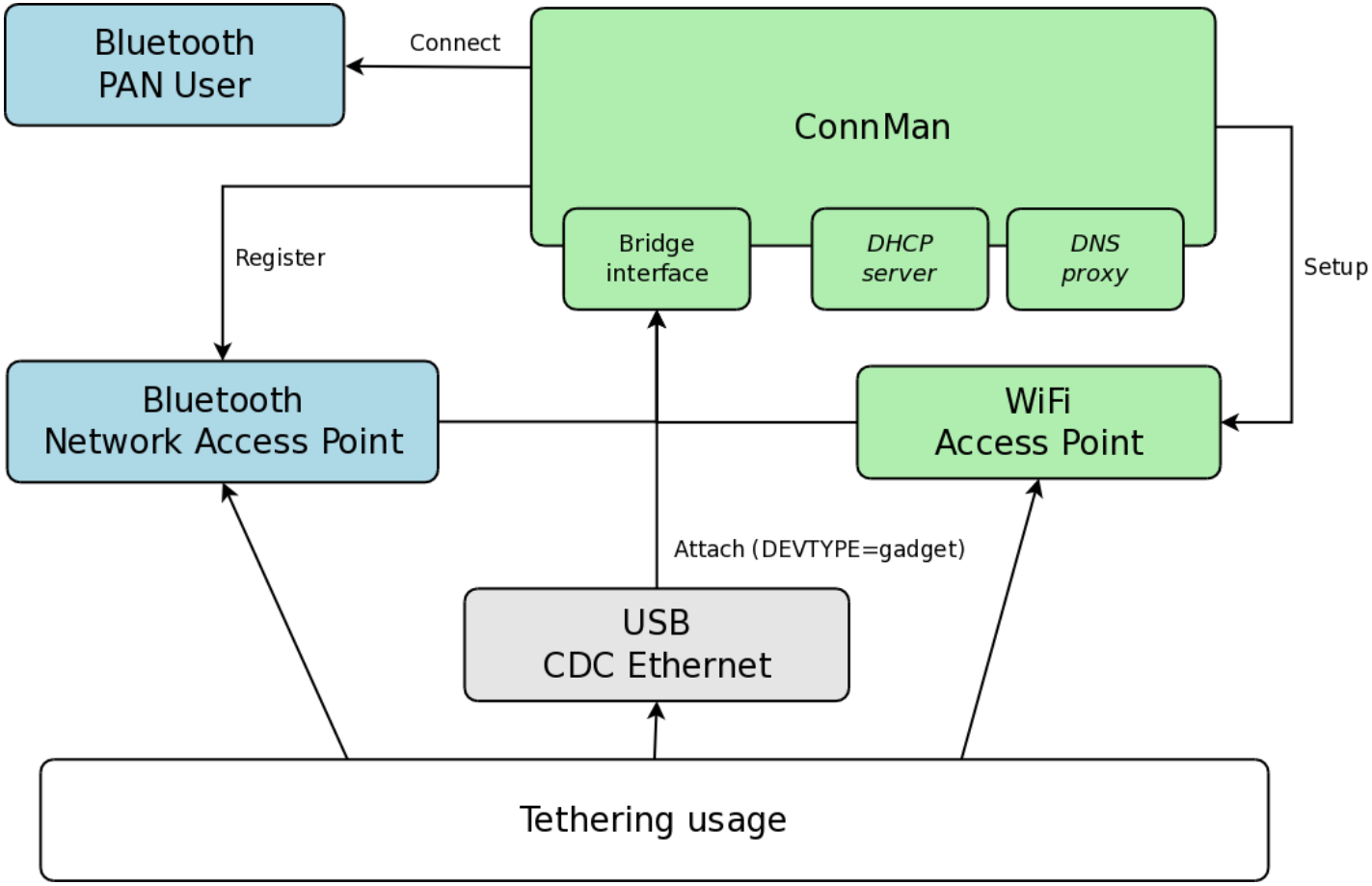
Additional ConnMan features

- Flight mode support
- DNS proxy
- Resolver abstraction
- Timeserver framework
- PolicyKit and OSPM support
- Support for VPN and 802.1x

Work in progress features

- Statistics and counter interfaces
- Portal and location detection
- Hotspot roaming
- Integrated DHCP client and server
- Better proxy improvements
- DNS enhancements

Bluetooth / Tethering

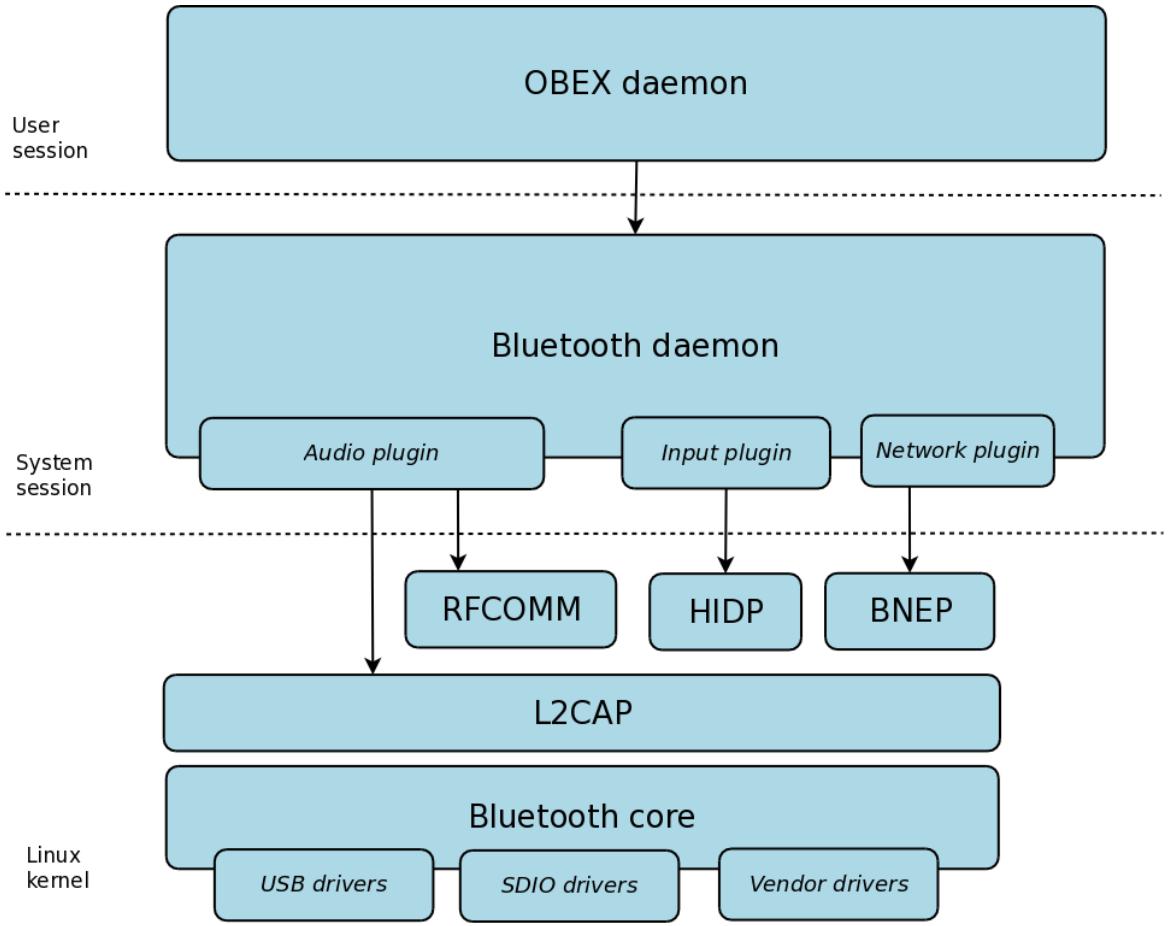


BlueZ features

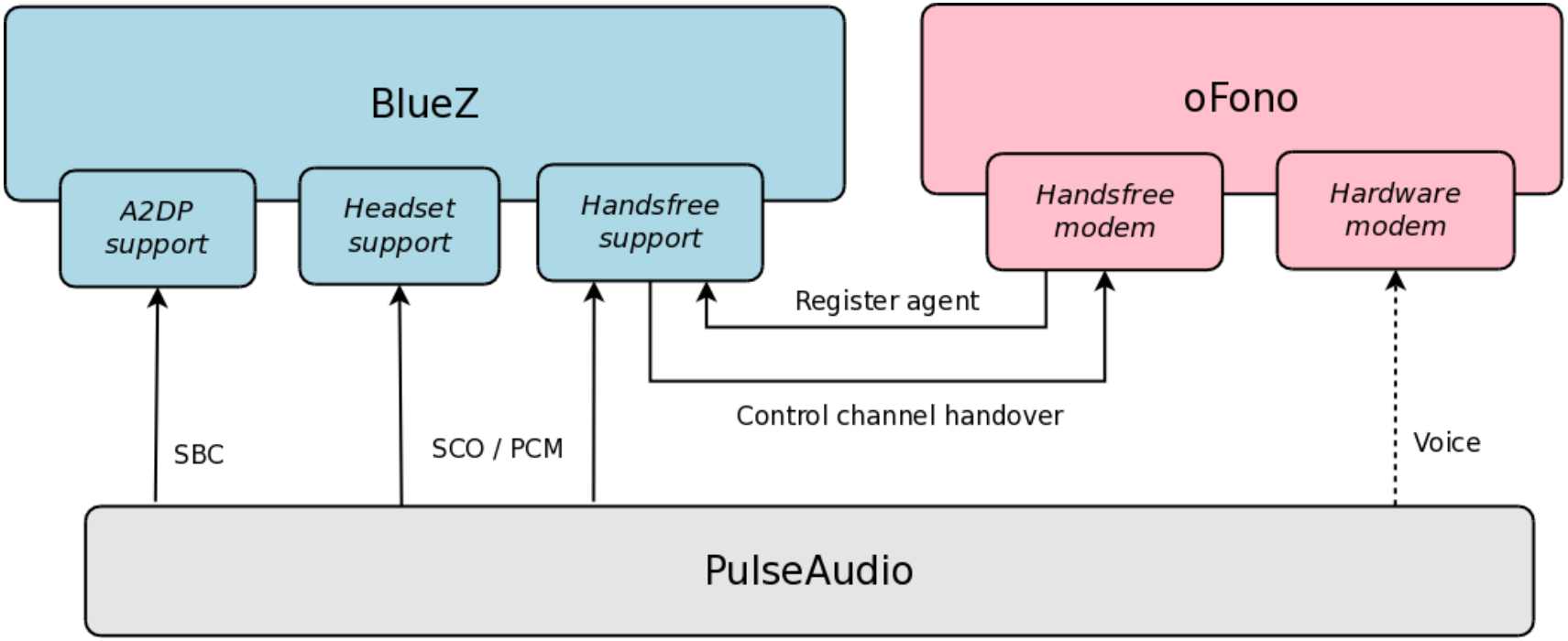
- Bluetooth 2.1 + EDR support
- Support for a wide range of major profiles
- Used in various products (N900, Android)

- Work in progress for high speed and low energy support (Bluetooth 3.0 and 4.0)

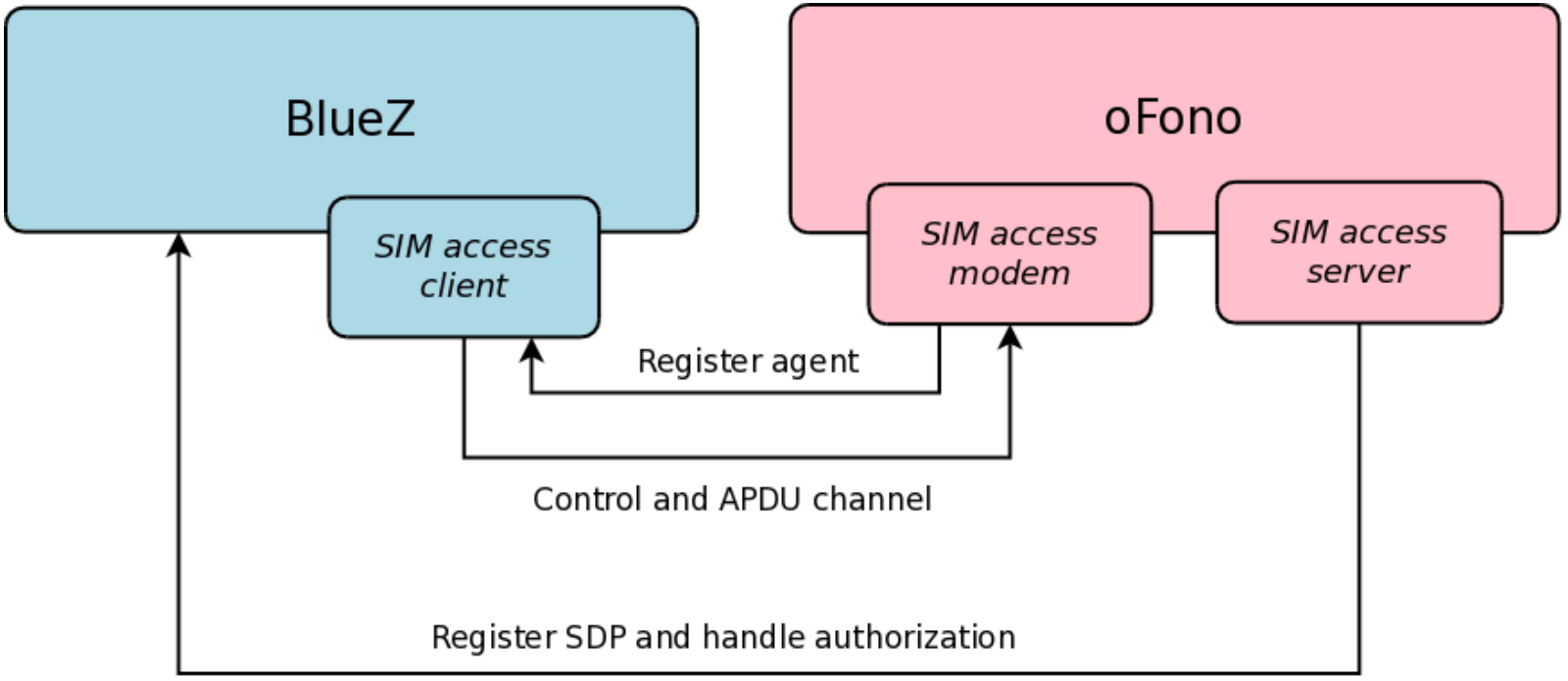
BlueZ architecture



BlueZ / oFono handsfree



SIM access interaction

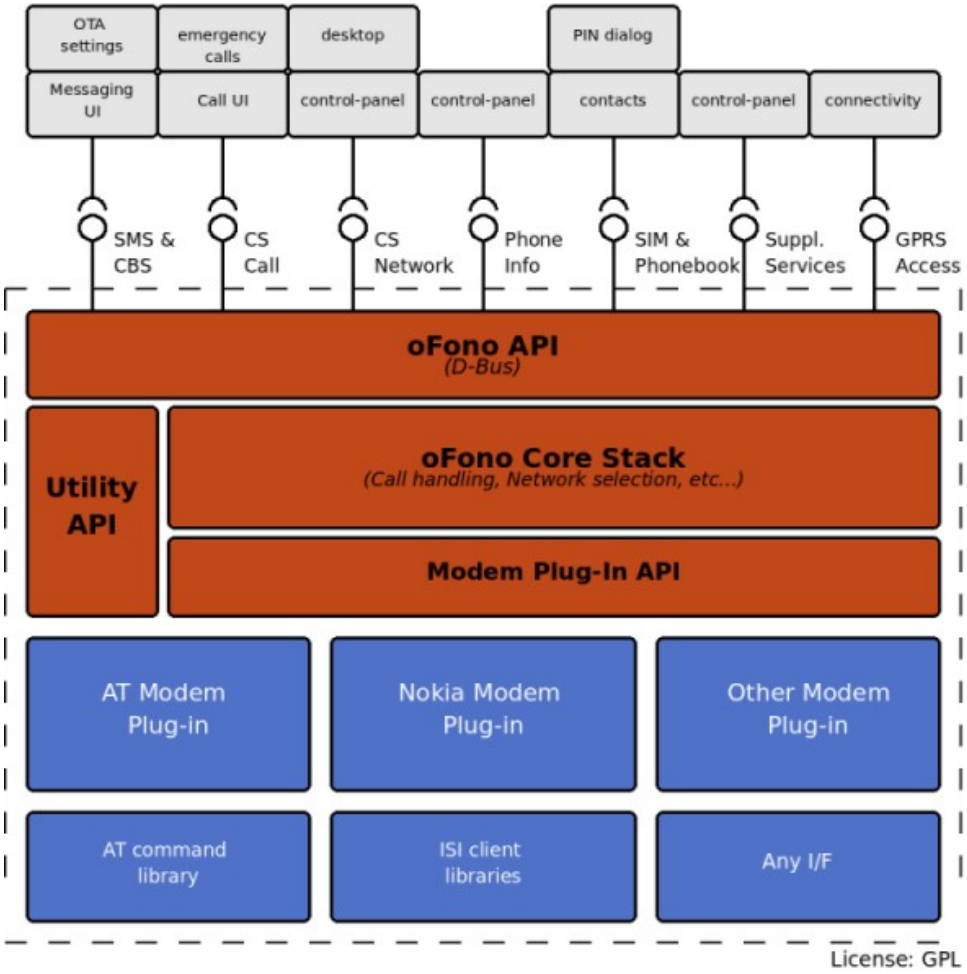


Future Bluetooth work

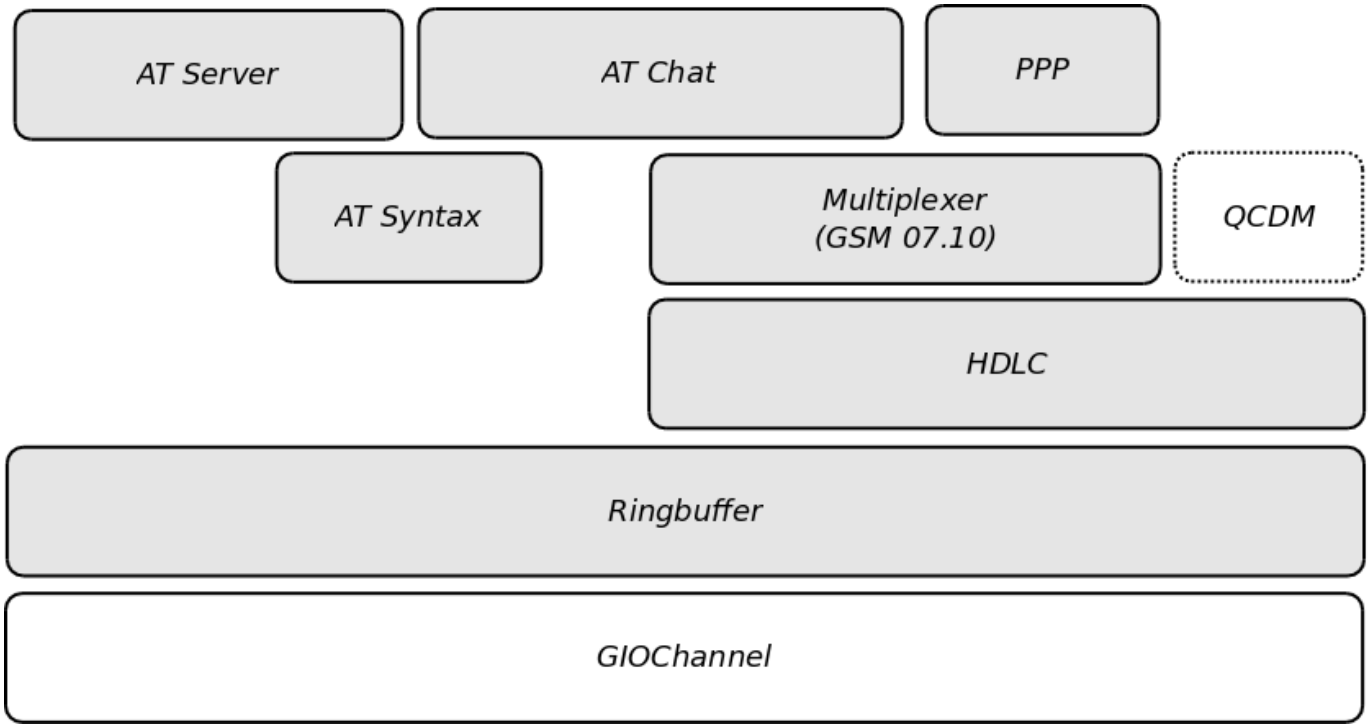
- Message access profile
- Location profile

- Bluetooth low energy support
- Attribute based profiles

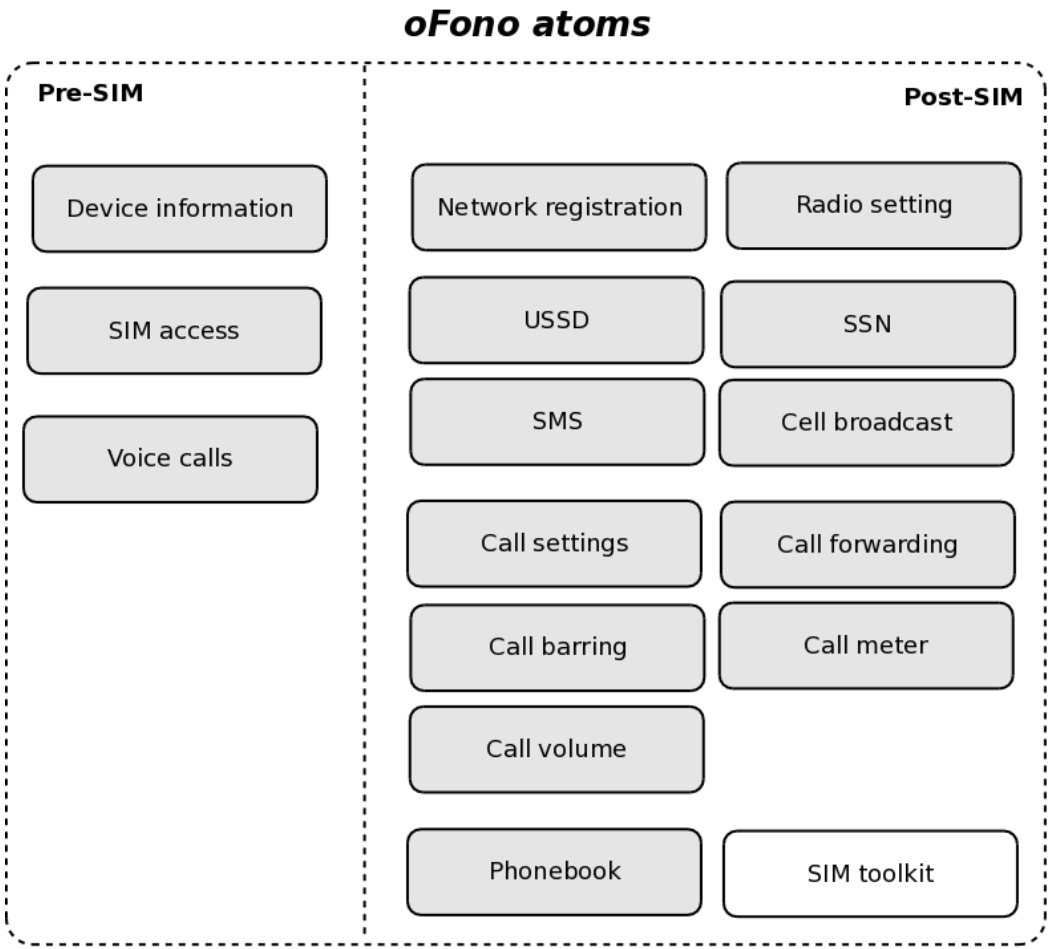
oFono architecture



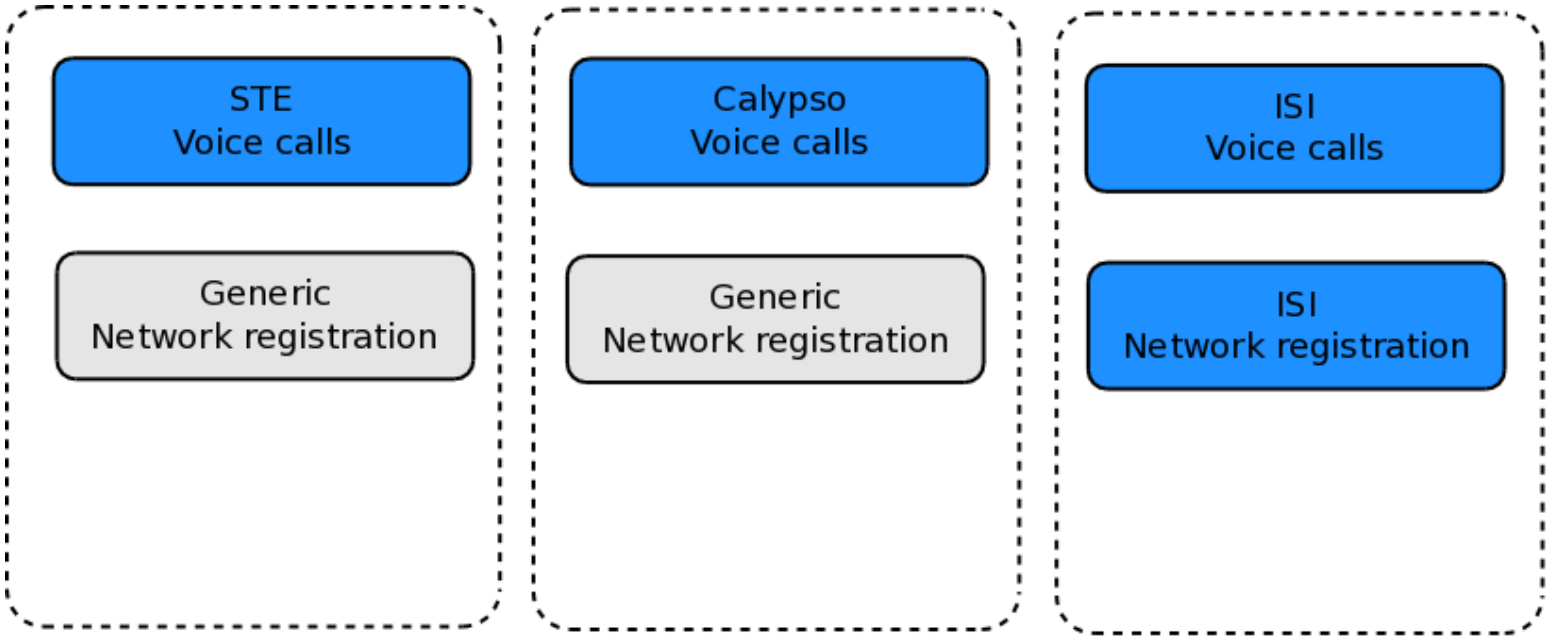
The swiss-army knife



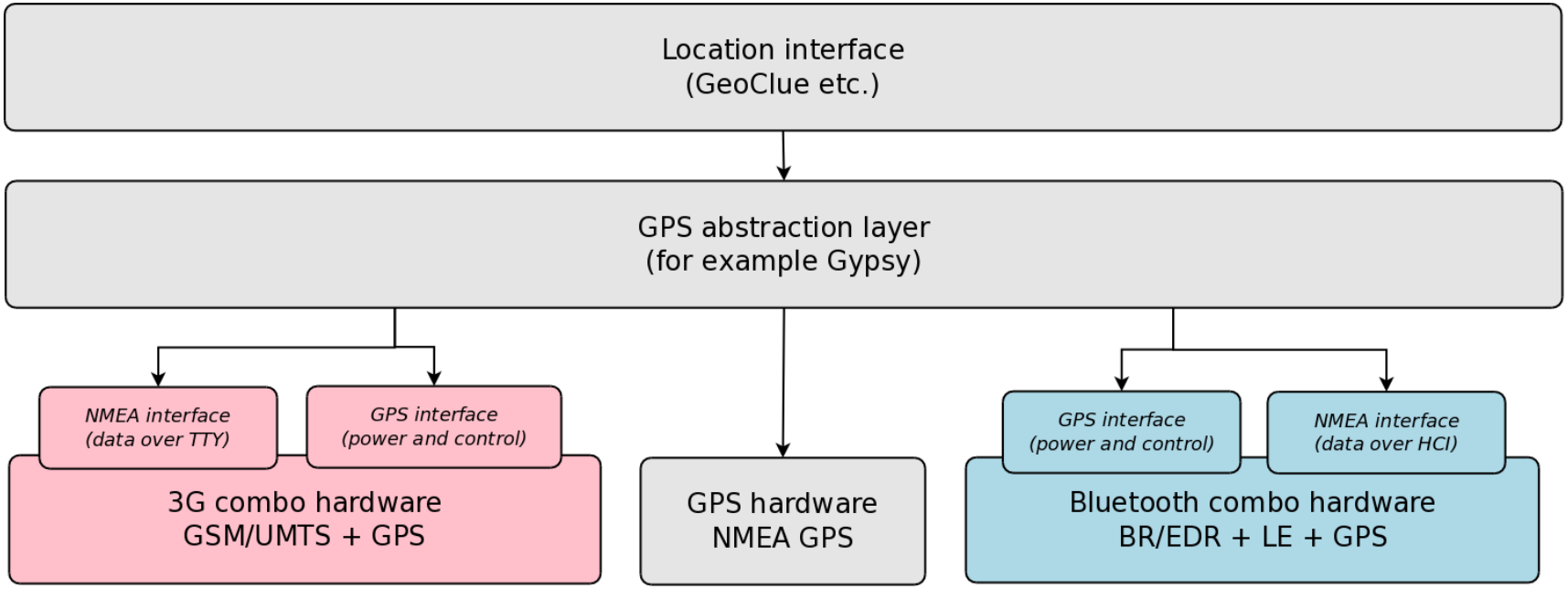
oFono internals



Atom re-use in modems



GPS overview



Summary

- Well integrated set of daemons for a full connectivity solution
- Support for major telephony, Internet and Bluetooth use cases

Questions?

- Websites
  http://www.bluez.org/
  http://www.ofono.org/
  http://www.connman.net/
- Mailing list
  linux-bluetooth@vger.kernel.org
  ofono@ofono.org
  connman@connman.net
- #bluez #ofono #connman on freenode.net

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