

Moblin Overview

Paul Cooper
OTC, Intel

Key Ingredients of Moblin

Moblin.org

Moblin SDK

Moblin Build
System

Moblin
Ecosystem

Moblin
Stack

Moblin.org



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MID or Netbook



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Moblin is an open source project focused on building a Linux-based platform optimized for the next generation of mobile devices including Netbooks, Mobile Internet Devices, and **In-vehicle infotainment systems**.

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IRC: [#moblin](http://irc.freenode.org) on irc.freenode.org

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Moblin SDK

Development Environment

KVM

VMWare

Moblin Distribution

Development Tools

Moblin Image Creator 2

Power Top

Linux Project Generator

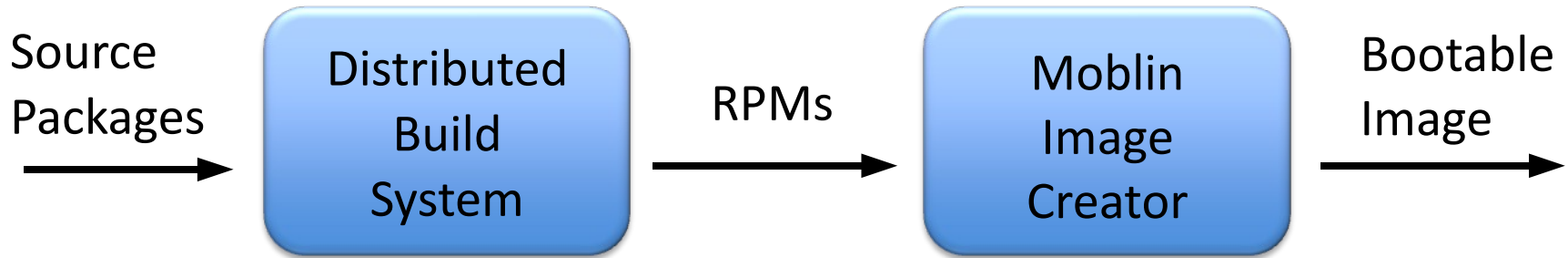
Eventual IDE Integration

Documentation

Developer Guides

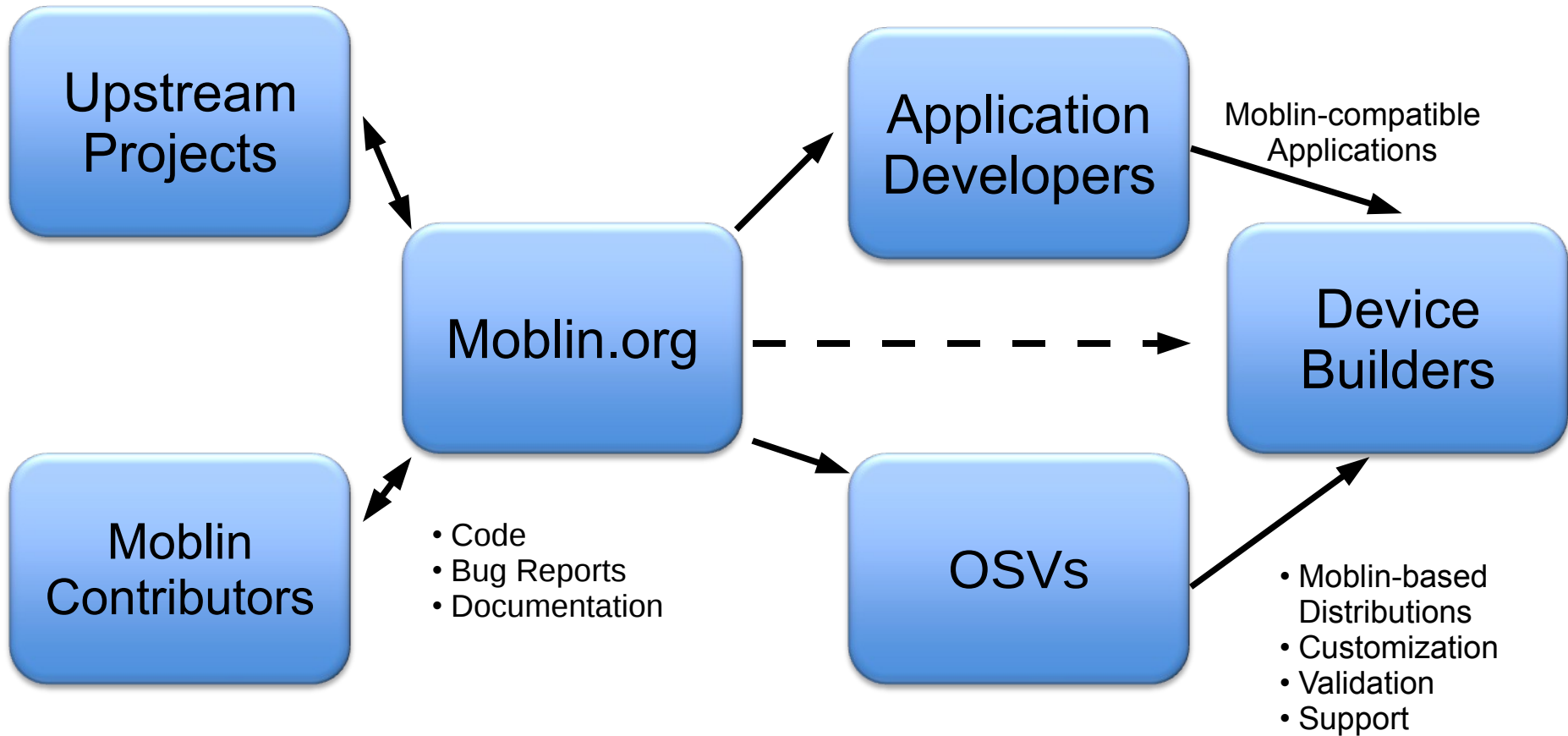
API References

Moblin Build System

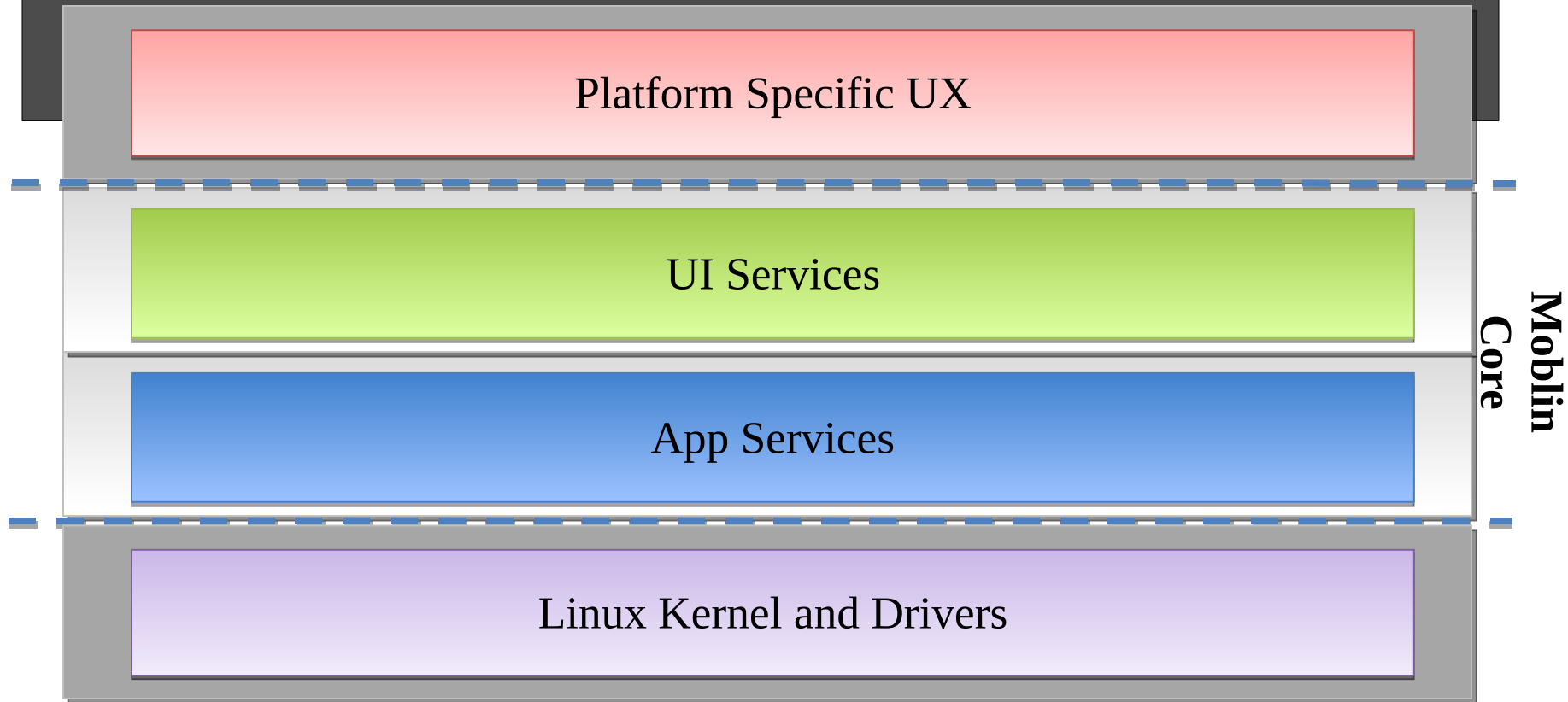


- Goals for the Moblin distribution
 - Optimized run-time footprint
 - Optimal disk footprint
 - Optimal power and battery life
 - Optimal performance and boot time

Moblin Ecosystem

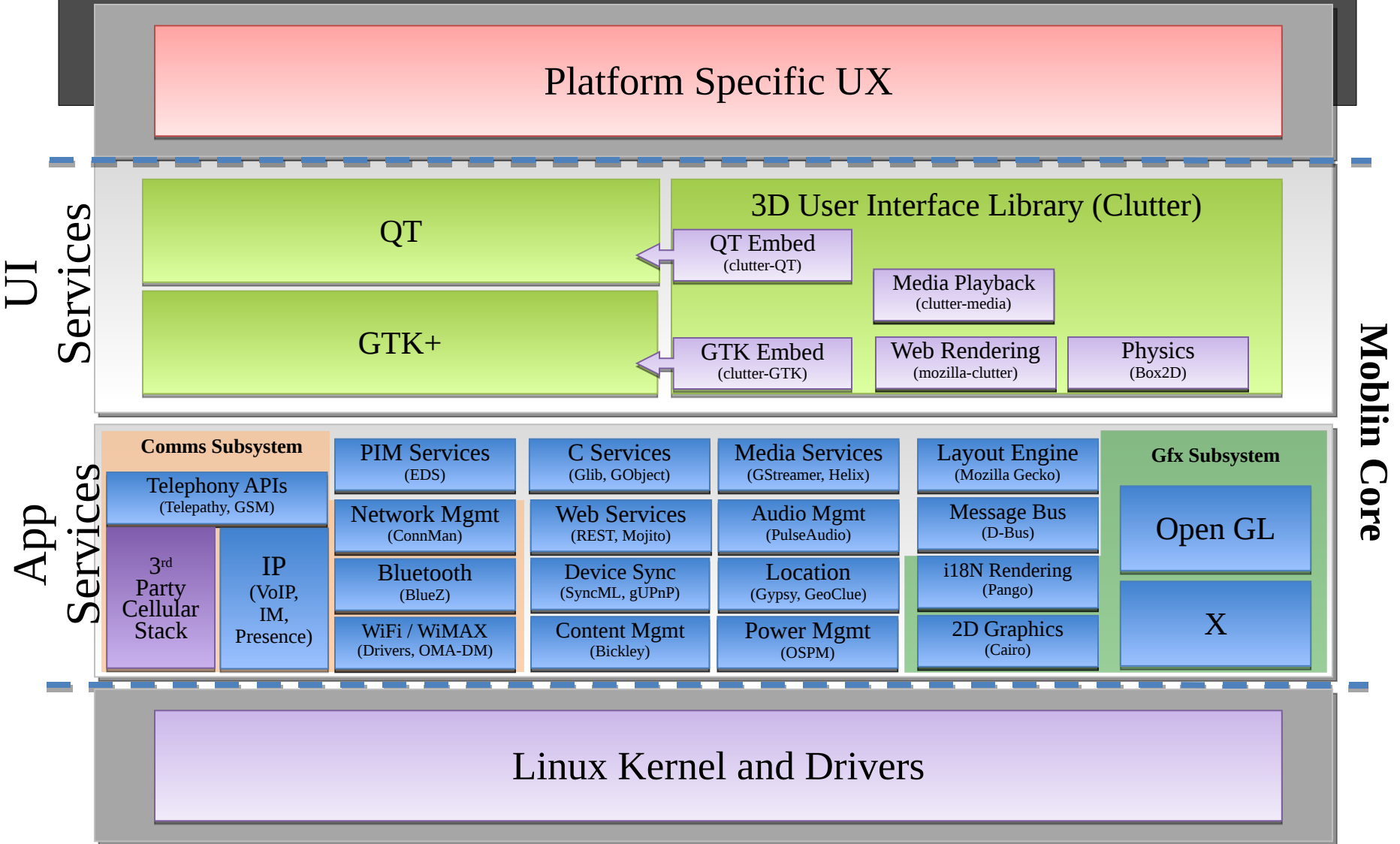


The Moblin Stack

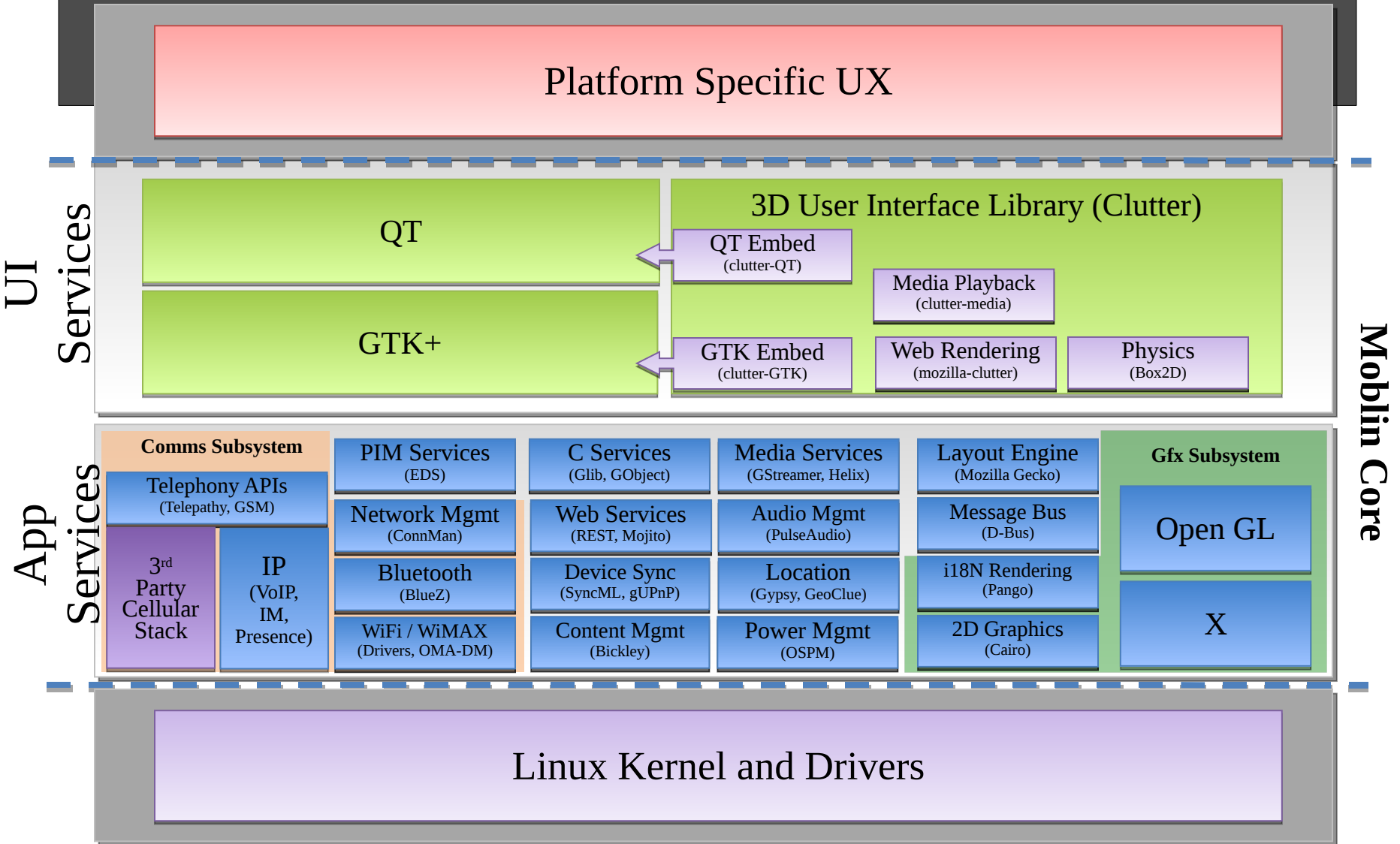


- Moblin Core is common across platforms
- User Experience is specific to a platform (e.g. MID, Netbook, IVI, ...)

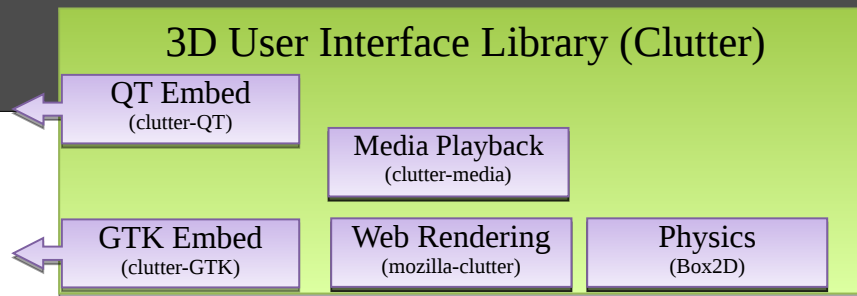
The Moblin Core



The Moblin Core

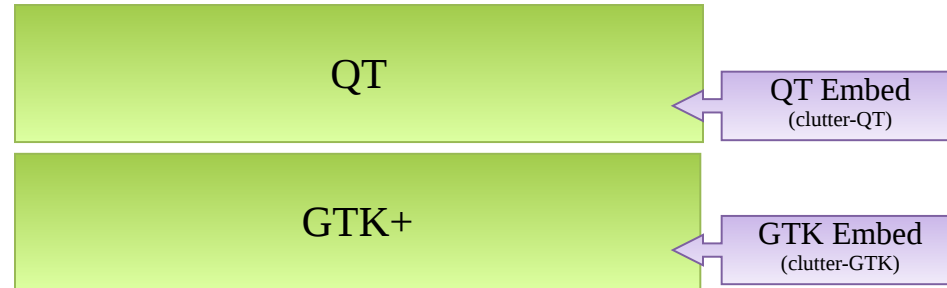


Clutter



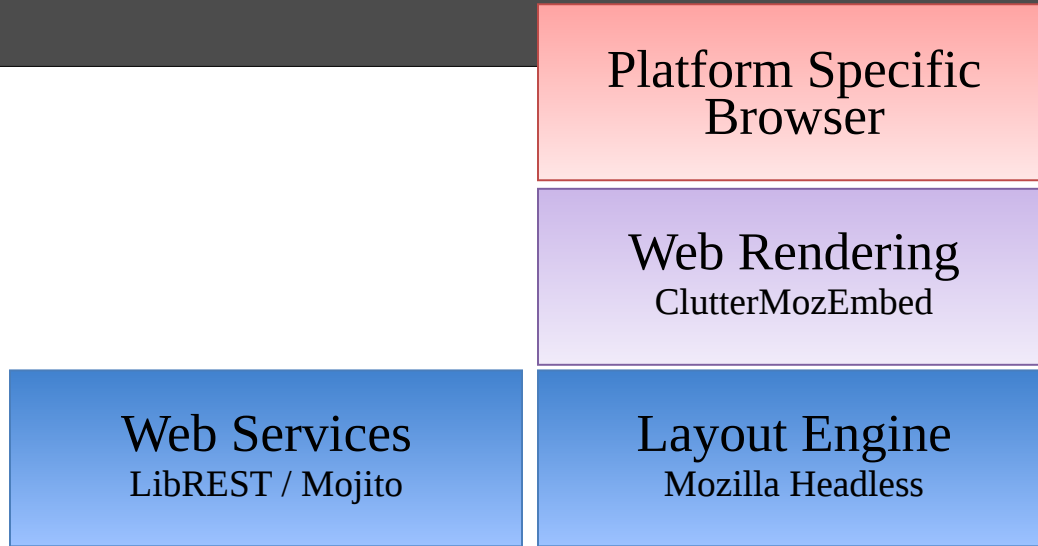
- Clutter is an open source software library for creating sleek, fast and visually rich interfaces with 3D effects and animations
 - Uses OpenGL without exposing the complexity
 - Offers a simple, object-oriented API, tailored toward manipulating 2D objects in 3D space and time
 - Built on glib, gobject, pango, cairo
 - Developed in C with bindings for Python, Perl, C#
 - Released under the GNU LGPL license

QT / GTK+



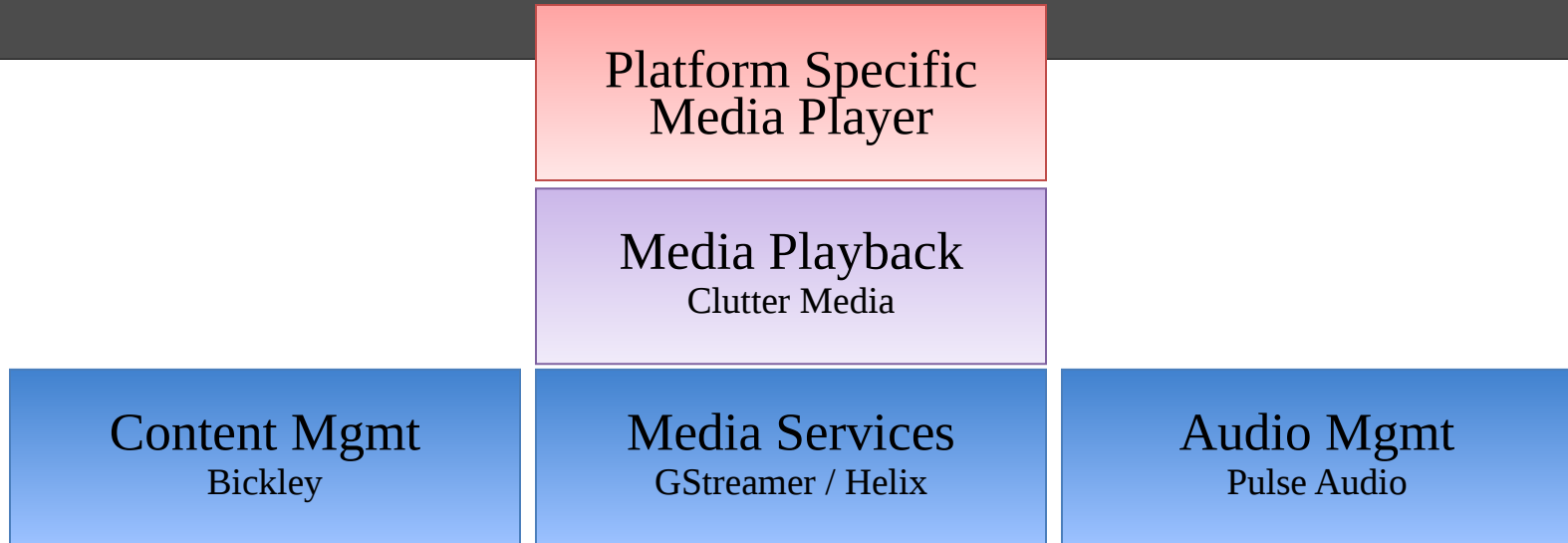
- QT & GTK+ are the standard widget toolkits for Linux
- Clutter-qt and Clutter-gtk allow embedding of Clutter into QT and GTK+ based apps

Internet



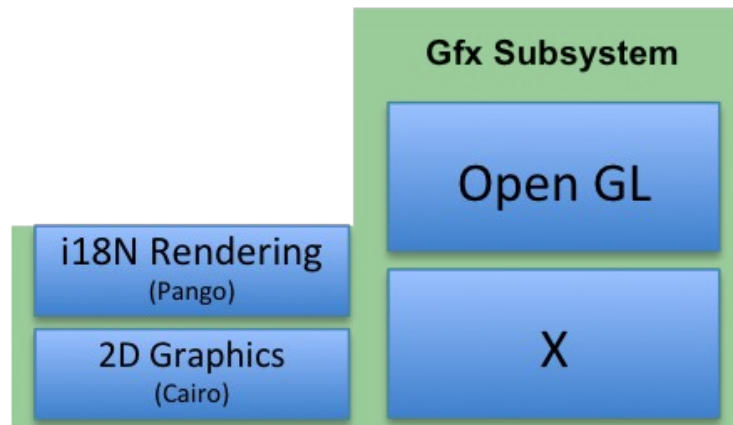
- Three major components of the browser
 - Headless layout engine, clutter embedding, and a platform specific browser app
- Web Services libraries enable integration of web content (e.g. social networking, media) into the user experience

Media



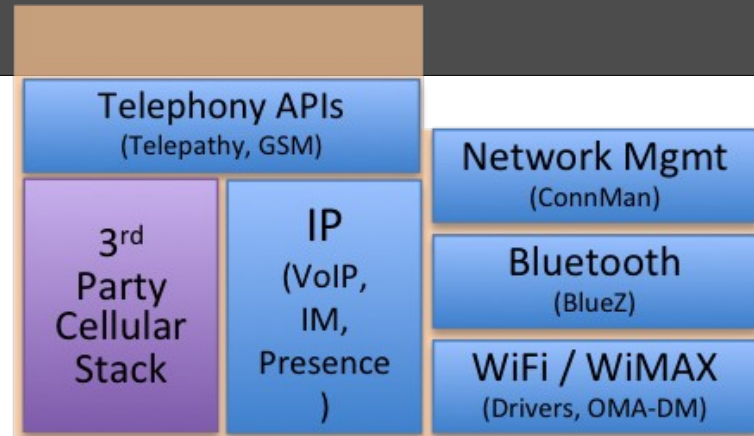
- Media stack is designed to support either Helix or GStreamer
- Clutter-media provides a uniform interface to control playback of media sources
- Bickley provides metadata extraction and management for media files (audio, video, and photo)

Graphics Subsystem



- Clutter makes heavy use of 3D acceleration via OpenGL
- Support for DRI2 enables OpenGL-in-OpenGL (e.g. for running clutter apps in a compositing window manager)

Comms



- Telephony API to enable support for multiple 3G voice stacks and integration with VoIP
- Network management via ConnMan supporting WiFi, WiMAX, and 3G data connections

PIM and Sync

PIM Services
EDS-dbus

Device Sync
SyncML, GUPnP

- EDS-dbus provides the data store for PIM data (Calendar, Contacts, and Tasks)
- Planning a SyncML client which synchronizes PIM data
- Media sync under investigation

Location

Location
Gypsy, Geoclue

- GeoClue provides location information from a variety of sources via a D-Bus interface
- Gypsy provides abstracted, multiplexed access to GPS devices (a replacement for GPSD)

Other Services

C Services
Glib, GObject

Power Mgmt
OSPM

Message Bus
D-Bus

- Glib and GObject provide a portable object system used by other services
- Power management for specific platforms (e.g. OSPM for MIDAs)
- D-Bus as a common mechanism for app-to-app / app-to-service communication

Agenda

- 10:00 - 10:30 Break
- 10:30 - 11:15 Developing for Moblin Core Technologies: Rob Bradford
- 11:15 - 12:00 Connection Manager: Marcel Holtmann
- 12:00 - 13:00 Lunch
- 13:00 - 15:00 Clutter Tutorial: Emmanuele Bassi
- 15:00 - 15:30 Break
- 15:30 - 16:15 Moblin SDK: Bob Spencer
- 16:15 - 17:00 Porting Applications to Moblin: Rob Bradford

Questions?