

# Blue SDK RapidLaunch



Linux Integration of Blue SDK

## Support any Linux Distribution



Blue SDK RapidLaunch is a Linux-based framework for powerful and efficient Bluetooth development on any Linux distribution. It reduces the complexity of developing a Bluetooth solution on Linux by consolidating the rich number of APIs associated with the native stack and profile sets into a condensed set of powerful, yet simple to use APIs.

RapidLaunch easily handles complex interoperability requirements for advanced use cases such as concurrent, multiple profiles over multiple connections, secure phonebook caching, and more.

RapidLaunch is based on the highly respected BlueSDK Bluetooth host stack and profiles, which has been an industry-leading Bluetooth solution for 25+ years.

RapidLaunch takes care of the heavy lifting when it comes to Bluetooth development on Linux.

1 BILLION +

**Blue SDK**

DEVICE SHIPMENTS

Accelerate Blue SDK integration into Linux with simplified Bluetooth APIs for easy multi-application access to Bluetooth services.

NEW		LE AUDIO
<b>MULTI-STREAM AUDIO</b>		Multiple, Independent, Synchronized Audio Streams
<b>LE AUDIO PROFILES</b>		Completely New Audio Profiles Architecture
<b>AUDIO QUALITY</b>		Better Audio & Voice Quality at Half the Bitrate

### SIMPLIFIED BLUETOOTH APIS

Allows for several applications to easily access the Bluetooth services

### D-BUS BINDING

Compatible with Automotive-Grade Linux or any other Linux distribution

### SOURCE CODE

Delivered in source code that can be modified and configured to meet customer-specific needs

### FLEXIBLE ARCHITECTURE

Clear abstraction of platform-specific code and between integration code & the stack / profiles

### AUTOMOTIVE READY

Support for the key Bluetooth profiles used in automotive infotainment

### ISOLATED FROM KERNEL

Keeps Bluetooth implementation isolated from the kernel to avoid compatibility issues

### CUSTOM LE SERVICES

Flexible interface to support user-defined LE services

### HARDWARE AGNOSTIC

- Integrates with all “Bluetooth-compliant” HCI radio hardware
- Designed for embedded systems with restricted MIPs and memory
- Highly portable / reusable

### SUPPORTS CUSTOM IPCs

Can be easily adapted for any IPC or Operating System

### PROTOCOL SNIFFER

Extracts HCI traffic and integrated with 3rd party sniffers (btsnoop & Teledyne CPAS)

### AUDIO INTEGRATION

- ALSA, PulseAudio, gStreamer
- Available with LC3 codec support
- Easily supports third-party codecs, such as aptX™, AAC, MP3, & LDAC™

### SAMPLE APPLICATIONS

Console-based applications to showcase the behavior of each profile / service

### MULTIPLE INSTANCES

Easily supports complex use cases that require multiple Bluetooth controllers

## Specifications

### • Bluetooth 5.3

#### Core Specification

Backwards compliant with spec versions 4.2, 5.0, 5.1, & 5.2

### • Includes the following key components:

RFCOMM, L2CAP, SDP, GAP (SCO Manager, Connection Manager, Device Manager, Security Manager), HCI, Device ID Profile

### • Qualified Host Subsystem

### • Supports the latest Bluetooth Profiles:

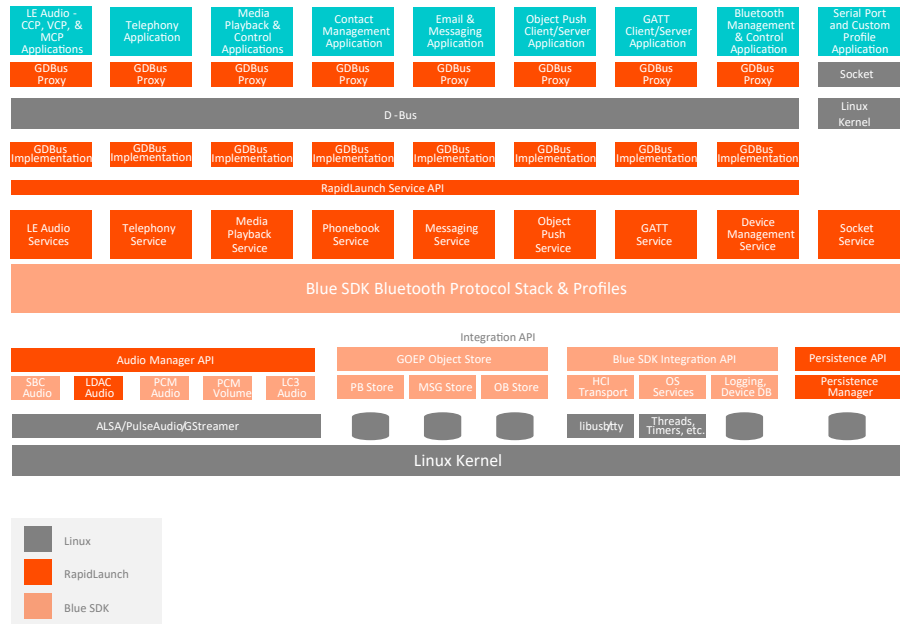
- o A2DP 1.3.2
- o MAP 1.4.2
- o AVRCP 1.6.2
- o PBAP 1.2.3
- o HFP 1.8
- o SPP 1.2

### • LE Audio Profiles

AICS, ASCS, BAP, BASS, CAP, CCP, CSIP, CSIS, MCP, (G)MCS, MICP, MICS, OTP, OTS, PACS, (G)TBS, TMAP, VCP, VCS, VOCS, LC3 Codec

## Architecture

Significantly reduces the number of APIs for controlling the stack & profiles



<sup>1</sup> Fig.: Represents the daemon architecture with all core stack components and profiles running in the context of a user space Linux daemon. Simplified Bluetooth APIs designed to be used with IPC mechanisms to allow several applications to easily access the Bluetooth services.

## Expert Service & Support



**Bluetooth®** –Our Bluetooth experts have been building Bluetooth solutions since 1998. We provide fast, detailed responses to offer exceptional support to our customers.

**Porting and Integration services available upon request**

### Headquarters

#### Germany

OpenSynergy GmbH  
Rotherstraße 20  
D – 10245 Berlin

Phone: +49 30 6098 540 - 0

Fax: +49 30 6098 540 - 99

E-mail: [sales@opensynergy.com](mailto:sales@opensynergy.com)

Web: [www.opensynergy.com](http://www.opensynergy.com)

### Worldwide Sales

#### United States

OpenSynergy, Inc.  
765 East 340 South  
Suite 106  
American Fork, UT 84003

Phone: +1 (801) 692 1653

E-mail: [sales@opensynergy.com](mailto:sales@opensynergy.com)

### Distributors

#### Japan

Ubiquitous AI Corporation

Phone: +81 3 3493 7981

E-mail: [sales@ubiquitous-ai.com](mailto:sales@ubiquitous-ai.com)

Web: [www.ubiquitous-ai.com](http://www.ubiquitous-ai.com)