Android Mobile Software Development

Android is a software platform for mobile devices, powered by the Linux kernel, initially developed by Google and later the Open Handset Alliance. It allows developers to write managed code in the Java language, controlling the device via Google-developed Java libraries. Applications written in C and other languages can be compiled to ARM native code and run, but this development path is not officially supported by Google.

At **Rapidsoft Systems, we have been working with Android based applications in various application domains, specially porting current mobile games written for other platforms such as J2ME and iPhone.**

The unveiling of the Android platform on 5 November 2007 was announced with the founding of the Open Handset Alliance, a consortium of 48 hardware, software, and telecom companies devoted to advancing open standards for mobile devices. Google released most of the Android code under the Apache license, a free-software and open source license. Android is a software stack for mobile devices that includes an operating system, middleware and key applications. The Android SDK provides the tools and APIs necessary to begin developing applications on the Android platform using the Java programming language.

Android Features

- Application framework enabling reuse and replacement of components
- Dalvik virtual machine optimized for mobile devices
- Integrated browser based on the open source WebKit engine
- Optimized graphics powered by a custom 2D graphics library; 3D graphics based on the OpenGL ES 1.0 specification (hardware acceleration optional)
- SQLite for structured data storage
- Media support for common audio, video, & image formats (MPEG4, H.264, MP3, AAC, AMR, JPG, PNG, GIF)
- GSM Telephony (hardware dependent), Bluetooth, EDGE, 3G, and WiFi (hardware dependent)
- Camera, GPS, compass, and accelerometer (hardware dependent)
- Rich development environment including a device emulator, tools for debugging, memory and performance profiling, and a plugin for the Eclipse IDE

1. Android Phone   2. Android Mobile Development

Libraries
Android includes a set of C/C++ libraries used by various components of the Android system. These capabilities are exposed to developers through the Android application framework. Some of the core libraries are listed below:

- System C library - a BSD-derived implementation of the standard C system library (libc), tuned for embedded Linux-based devices
- Media Libraries - based on PacketVideo's OpenCORE; the libraries support playback and recording of many popular audio and video formats, as well as static image files, including MPEG4, H.264, MP3, AAC, AMR, JPG, and PNG
- Surface Manager - manages access to the display subsystem and seamlessly composites 2D and 3D graphic layers from multiple applications
- LibWebCore - a modern web browser engine both for the Android browser and an embeddable web view
- SGL - the underlying 2D graphics engine
- 3D libraries - an implementation based on OpenGL ES 1.0 APIs; the libraries use either hardware 3D acceleration (where available) or the included, highly optimized 3D software rasterizer
- FreeType - bitmap and vector font rendering
- SQLite - a powerful and lightweight relational database engine available to all applications

Why Rapidsoft Systems:

With over 350+ software projects executed, you can simply count on our expertise, experience in giving you the right solution at absolutely lowest possible cost. If you would like more information, or want us to submit an estimate or a "no-obligation" quote for your project, contact us for more information.

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