

ACCESS Linux Platform™

An Open Platform for Advanced Mobile Devices



ACCESS Linux Platform™ enables the creation of world-class mobile phones and wireless devices by providing an integrated, flexible and complete commercial-grade LINUX® platform designed for the worldwide mobile phone and converged device markets.

ACCESS Linux Platform Enables the Mobile Ecosystem

ACCESS Linux Platform enables the creation of world-class mobile Linux phones and wireless devices. Using Linux technology, the worldwide standard for open source software, ACCESS Linux Platform combines best-in-class open source Linux components with proven mobile technologies from ACCESS. These components have been optimized and integrated to provide a flexible, customizable and open operating system software.

ACCESS Linux Platform is compliant with the platform requirements of the LiMo Foundation. The LiMo Foundation is an industry consortium dedicated to establishing the first truly open, mobile, Linux-based software platform. The combination of ACCESS Linux Platform and LiMo compliance enables accelerated design, development and deployment of mobile and Internet-enabled devices.

Mobile device manufacturers, operators and third-party developers will find that ACCESS Linux Platform enables them to deliver engaging new products that offer unique end-user experiences.

Product Overview

ACCESS Linux Platform comes from the creators of the successful mobile operating system Garnet™ OS and continues the Garnet OS advantage of enabling the development of full-featured connected mobile devices.

User-Friendly Mobility

ACCESS Linux Platform enables licensees to create an attractive user experience, with applications that are easy to learn and to use. It also addresses the special requirements of resource-constrained mobile device platforms and includes an appealing and intuitive user interface.

ACCESS Linux Platform applications present the user with an easy-to-understand interface relevant to the task at hand, and can share information with other applications in the platform. As a result, users can quickly and efficiently complete activities and tasks. ACCESS has developed an advanced graphical user interface engine across the platform; it allows for creation of highly differentiated user interfaces limited only by the hardware. Device manufacturers and operators can take complete control of designing the user experience for their products.

A Complete Mobile OS

ACCESS Linux Platform provides licensees with all components needed to build world-class handsets or mobile devices. The platform contains a modern and powerful user interface engine, a comprehensive suite of applications, as well as a full LiMo compliant middleware layer.

The user interface engine provides mobile devices with an engaging, modern visual design using animated effects that fully utilize the capabilities of the licensee's hardware and provides licensees a way to create a differentiated, platform-wide experience for today's mobile device market. Branding and theming capabilities facilitate operator and licensee brand extensions.

The ACCESS Linux Platform software also comes with a complete set of full-featured applications. A comprehensive suite of telephony and messaging applications includes a dialer, text and multimedia messaging, and e-mail. The telephony subsystem in the platform exposes services to applications by abstracting the underlying radio interface, allowing for easy licensee adaptation.

The productivity suite of applications includes the home screen, which may be personalized with visual bookmarks or application shortcuts for instant access to pertinent information and applications. PIM applications manage a user's contacts and calendars. OMA DS-based HotSync™ technology enables synchronization with Microsoft Outlook as well as with network-based backup and restore services over the air.

ACCESS Linux Platform also features a full suite of media applications including a music player and applications for capturing and viewing photos and video. A flexible standards-based media framework supports easy delivery of audio and video from the Internet, as well as a seamless playback experience.

NetFront Browser

Included in ACCESS Linux Platform is the world-class, proven ACCESS NetFront™ Browser, which supports full Internet browsing while optimizing content for mobile devices with features like Smart-Fit Rendering™ for small screens, landscape viewing, and fast web page rendering.

NetFront Widgets Engine

The NetFront™ Widgets engine allows users to add Web 2.0 widgets to their devices, for immediate access to personalized information, like news, sports or traffic updates.

*NetFront technologies have shipped in over 700 million devices worldwide.

Operator Application Suites

In today's competitive mobile environment, operators are constantly seeking to increase subscriber satisfaction and differentiation. The deployment of highly customized and branded application suites can contribute significantly to achieving these goals. ACCESS supports device manufacturers in meeting operator requirements by offering application suites that integrate specific operator services and applications into ACCESS Linux Platform.

Extensive Device Customization

ACCESS Linux Platform includes an advanced graphical user interface engine across the platform, to allow mobile device manufacturers, operators and developers to create innovative, cutting-edge user interfaces with Hollywood-class visual effects coveted by today's end users. Licensees can create engaging, interactive user experiences with system-wide animations and transitions. Photo realistic 2.5D and 3D visual effects are possible, removing barriers to designers' creativity.

The user interface engine's architecture enables rendering of applications in a single process. This allows not only concurrent handling of applications with different graphics environments, but also their concurrent execution. The resulting freedom of choice in graphical environments, together with easy GPU porting capabilities, gives licensees and operators a way to leverage their application investments. To further support efficient user interface design, the graphical user interface engine incorporates open-source projects as well as graphical hardware acceleration through OpenGL® ES. Applications use a scriptable interface abstracting application logic from the user interface elements, enabling developers to focus on the application design. The graphical user interface engine also features an extensive toolkit for licensees, including a full set of standard and advanced user interface elements called actors. Each actor exposes user experience properties and behaviors, offering developers a range of options from making simple modifications, to complete customization of the experience.



Mobile Devices for the ACCESS Linux Platform

ACCESS Linux Platform has been optimized for high-end, dual-core mobile device platforms, which allows licensees to take advantage of its full-featured applications, advanced user interface engine and LiMo and operator compliant middleware.

ACCESS Linux Platform for Smartphones

ACCESS Linux Platform is well-suited for the requirements of media-oriented as well as business-oriented smartphones. With a range of options for data connectivity, it offers an extensive feature set that ranges from multimedia and messaging capabilities to PIM and email functionality. The ACCESS™ Developer Network fosters broad availability of native third-party applications for post-purchase installation on the device, while support for Java™ and Web 2.0 application environments enables access to thousands of applications.

ACCESS Linux Platform for Mobile Internet Devices

Mobile Internet Devices (MID) provide greater support of mobile data services for “always-on” connectivity, with a near PC-like experience. Common MID applications will include messaging and social networking, as well as web browsing and information retrieval. Photo and video applications will also be prevalent. ACCESS Linux Platform can effectively address these application requirements with its messaging, multimedia and full Internet browsing functionality, as well as support for Location Based Services (LBS).

A World of Applications

ACCESS Linux Platform provides third-party developers the opportunity to create new and differentiated applications. Because ACCESS Linux Platform supports Linux native, Garnet OS, Java or NetFront Widgets runtime environments, it represents an attractive opportunity for third-party developers. ACCESS Developer Network (ADN) is a free, global program connecting developers to tools, technical information, comprehensive support and distribution channels. ADN provides technical and business development support to assist mobile developers in launching applications and services for ACCESS Linux Platform.



Telephony and Communications

- Full-featured telephone application with speed dial, call forward/wait/hold/bar and multi-party conferencing
- Multihoming on GPRS and 3G networks
- IMPS, SMS, MMS, Cell Broadcast, IMAP4, POP3
- GPS/A-GPS services

Input and Navigation

- 12-key keypad with 5-way input and navigation support
- Stylus-based touch screen input and navigation support
- Finger touch input and navigation
- Accelerometer support
- Presence detector support (screen auto-lock)

User Data and Software Management

- Manage personal information on a Windows XP or Windows Vista desktop computer with Microsoft Outlook to add, edit or delete contact records, calendar events, memos and tasks and synchronize using HotSync software, which now supports OMA DS v1.2 (SyncML)
- Backup and restore information between the device and desktop as well as install native, Garnet OS, Java applications and media files with HotSync
- PIM synchronization over the air directly with operator synchronization services
- OMA Device Management v1.2
- OMA FOTA (including SCOMO)

Tools

- A "Virtual Phone" simulator, included with the ACCESS Linux Platform PDK and SDK, allows testing of applications by emulating a mobile device, as well as testing of device drivers by emulating a modem and a network.
- A complete and integrated suite of free application development tools is available to ACCESS Linux Platform application developers through the SDK provided as part of the ACCESS Developer Network program.

Wireless and Connectivity Protocols

- Telephony radios (including 3G) are easily integrated with the ACCESS Linux Platform telephony framework
- TCP/IP
- WiFi (802.11b/g, WPA2, WEP, Roaming)
- Bluetooth® Technology 2.0 + EDR Technology
- USB
- IrDA
- Serial

Application Environments

- Native application development for ACCESS Linux Platform includes GTK+ and the Hiker Application Framework™
- Garnet VM allows properly written Garnet OS applications to run unaltered ACCESS Linux Platform mobile devices
- Java VM, JV-Lite™2 Wireless Edition software, including popular JSR modules including JSR 179 (location), JSR 135 (mobile media), JSR 82 (Bluetooth technology), JSR 184 (3D Graphic), JSR 75 (PDA) and JSR 185 (wireless profile)
- NetFront Widgets software supports widget content written using HTML, CSS and JavaScript™

Advanced User Interface Engine

- Enables development of state-of-the-art user interfaces and graphical effects
- Standardized application interface allows modification of applications' complete look and feel without changing the applications' code
- An open architecture enables co-existence with applications from other graphical environments, as well as concurrent execution
- High performance through server-based graphics rendering
- Support for 2.5D and 3D graphical environments
- Hardware Acceleration through OpenGL® ES 2.0

Language Support

- English, French, German, Italian, Spanish and Japanese
- Additional locales and languages can be added

Security

- OMTF compliant security policy framework
- VPN framework

Media Framework Components

- Media selector
- MP3, AMR-NB, AMR-WB, AAC, MIDI, MPEG4-SP, H.263, H.264, WMA/WMV v9
- OMA DRM v1.0 Forward lock, Combined and Separate Delivery

Hardware Requirements

Performance

- 400Mhz ARM 9 or greater, GPU to provide 3D hardware acceleration via OpenGL ES 2.0 interface
- 65 color support (minimum)
- 256k color support (maximum)

Memory

- 128 MB RAM (minimum)
- 128 MB Flash EFIGS (minimum); two-byte localization or a 3G application suite may require more memory

Display

- 800 X 480 display Widescreen (optimized for the platform)
- 240 x 320 display QVGA
- 320 X 480 display HVGA

Native Applications

Communications

- NetFront™ Phone
- NetFront™ HandMail™
- NetFront™ SMS+
- NetFront™ SIM Application Toolkit
- NetFront™ iMessenger™

Productivity

- NetFront™ Home Screen (Includes NetFront™ Widgets player)
- NetFront™ HotSync® Manager
- NetFront Browser
- NetFront™ Document Viewer

PIM Applications

- NetFront™ Contacts
- NetFront™ Calendar
- NetFront™ Memos
- NetFront™ Tasks

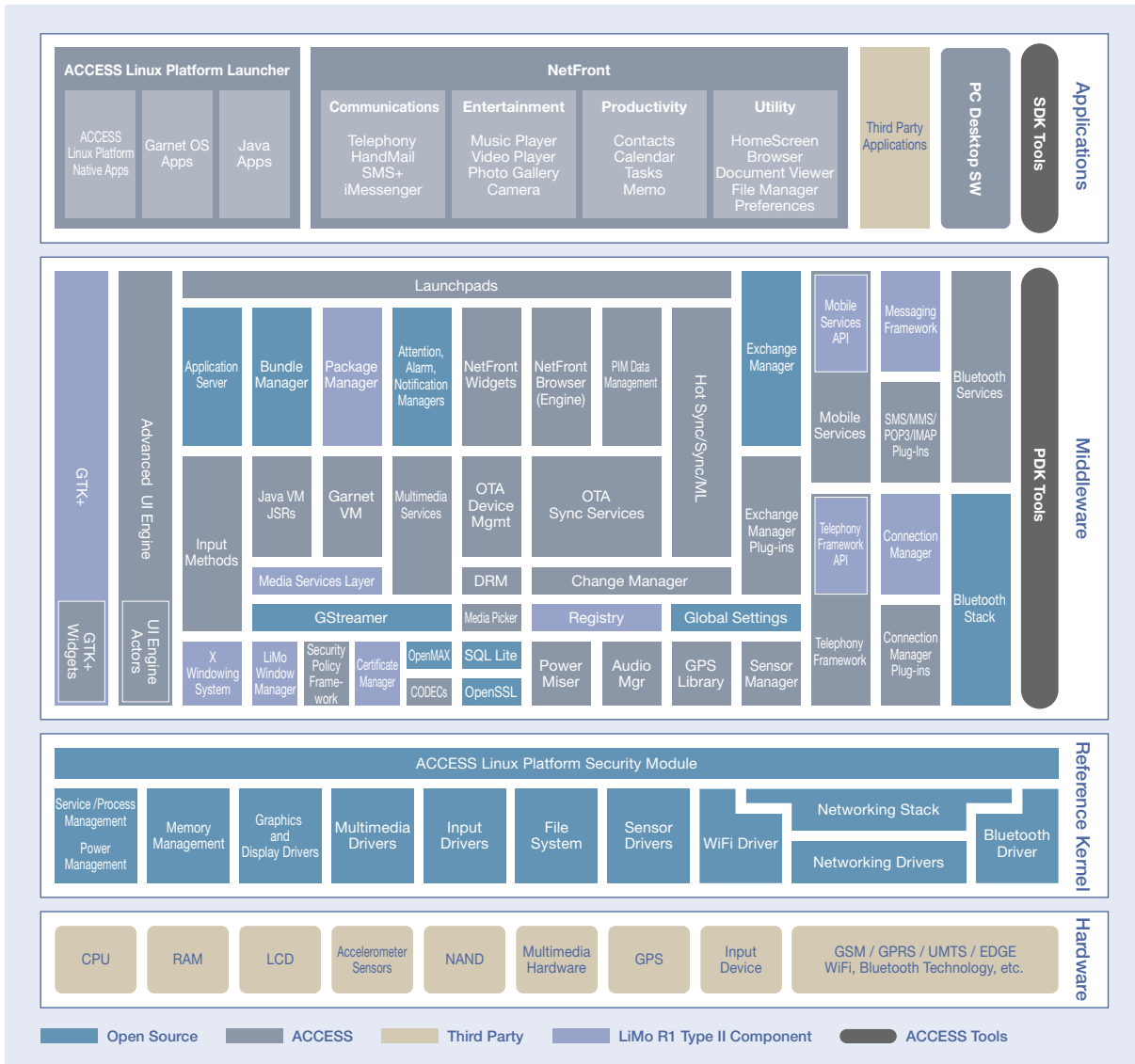
Utilities

- NetFront™ Clock
- NetFront™ Calculator
- NetFront™ Recorder
- NetFront™ File Manager

Multimedia

- NetFront™ Music
- NetFront™ Videos
- NetFront™ Photos
- NetFront™ Camera

Module Diagram | ACCESS Linux Platform



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