



openmoko

開放手機的革命

崑山科技大學

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開放手機新革命 (Mobile 2.0)

「Mobile 2.0: 由使用者 設計手機、提供內容」

每當我們需要特定的新功能時，就必須重買一支新的手機...

如果，我們能隨心所欲客製化手機，或是能自由地更換佈景主題.....

如果，我也能把我的創作放到每個人的手機上.....



開放手機 Mobile 2.0

開放平臺：技術開放、可
自由修改

互動：並非裝置本身，而
是與使用者的互動。

社群：開發者社群、使用
者社群



Android - An Open Handset Alliance Project

[Home](#) [Docs](#) [FAQ](#) [Blog](#) [Group](#) [Terms](#)

The Open Handset Alliance, a group of more than 30 technology and mobile companies, is developing Android: the first complete, open, and free mobile platform. To help developers get started developing new applications, we're offering an **early look** at the [Android Software Development Kit](#).



Open

Android allows you to access core mobile device functionality through standard API calls.



All applications are equal

Android does not differentiate between the phone's basic and third-party applications -- even the dialer or home screen can be replaced.



Breaking down boundaries

Combine information from the web with data on the phone -- such as contacts or geographic location -- to create new user experiences.



Fast & easy development

The SDK contains what you need to build and run Android applications, including a true device emulator and advanced debugging tools.

Android Blog

Android Blog

[Android SDK m5-rc14 now available](#)

Feb 13, 2008 - Posted by Jason Chen, Developer Advocate

On behalf of the entire Android team, I'm happy to let you know that an updated version of the Android SDK --

... -- SDK blog entry add to
notes rebasequ ne test world uoy tel o yppel
m' userst bitoruna entis eti lo llered n O
hideslives won ept-5-M DK5 bitoruna
golB bitoruna
golB bitoruna

Community

User Group

[Default value of integer in sqlite is 0?](#)

Feb 17, 2008 - Posted by maomao

Default value of integer in sqlite is 0? why not null? sample cod: package com.google.dbtest;
import ...

... tormi
zadda:algopap moe apesecas: boz eljmeze Glin
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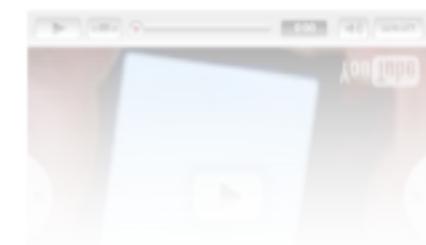
Getting Started

- [Learn about Android](#)
- [Download the SDK](#)
- [Join the community](#). Participate in our discussion group through email or the web.



The Android Developer Challenge will award \$10 million to developers who build great apps for Android.
[Learn more!](#)

Featured Videos



Open Mobile 時代來臨

2007年iPhone與Google Android帶起「新的手機使用概念」以及「開放的手機平臺」的革命。

使用者(end-user)為導向，由使用者自行客製化、或為使用者客製化的手機生產方式。

完全開放的手機平臺可以提供「自由修改」的自由、樂趣與彈性。



san francisco
october 15, 2007

home

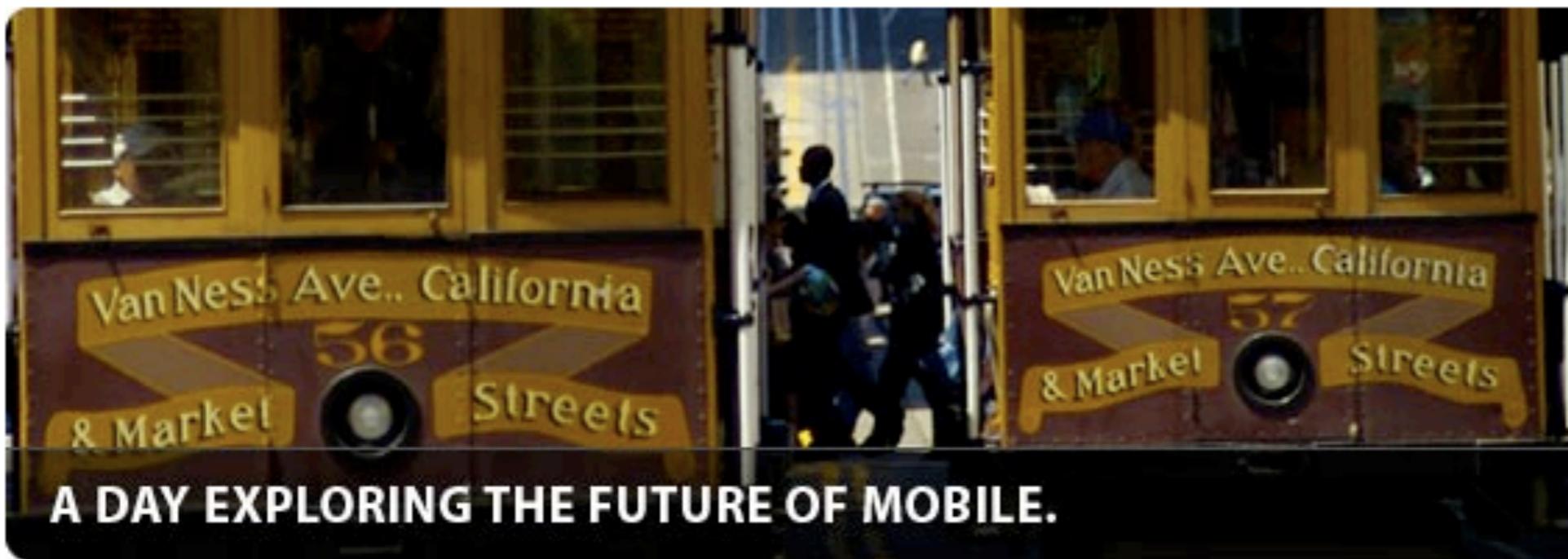
about

agenda

speakers

location

register



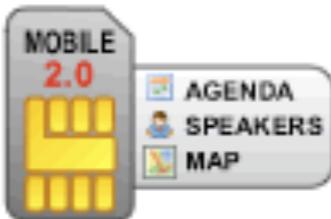
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topics

Topics to be covered

- User Experience, Usability, and Design
- Disruptive Business Models
- What is more important? The Web meets mobile or the Mobile meets the Web?
- Emerging Technology
- Enabling Infrastructure and Convergence
- Who owns your Data?



Mobile 2.0 Widget

presented by



THE Open GROUP
Making standards work®

speakers

Speakers and panel participants

The Mobile 2.0 conference brings together experts and thought leaders from all aspects of the mobile ecosystem, including investors, mobile carriers, device

gold sponsors

8:15 - 9:00	Breakfast Served	11:20 - 12:20	Emerging Technologies
8:45 - 9:00	Opening Remarks Gregory Gorman, The Open Group Rudy de Waele, mTrends		Russell Beattie, Mowser (Moderator) Mike Rowehl, AdMob Marc Davis, Yahoo! Ron Mandel, Adobe James Pearce, dotMobi C. Enrique Ortiz, eZee inc.
9:00 - 9:20	Keynote — Social Networking and Communities Tomi Ahonen, 3G Author & Mobile Blogger		
9:20 - 10:20	User Experience, Usability, and Design Brian Fling, Blue Flavor (Moderator) Kelly Goto, gotomedia Risto Lahdesmaki, Idean Enterprises Carlos Domingo, Telefonica Christian Lindholm	12:20 - 1:20	Lunch
10:20-10:50	Mobile Launch Pad Segment Introduction by Peter Vesterbacka, Somebazaar	1:20 - 2:20	Mobile 2.0 — The VC Perspective Gregory Gorman, The Open Group (Moderator) Greg Franklin, Intellect Partners Voytek Siewierski, Mitsui & Co, Venture Partners Rich Wong, Accel Partners Nagraj Kashyap, QUALCOMM Ventures
10:50 - 11:20	Coffee Break	2:20 - 3:20	Fireside Chat: The State of the Mobile Industry Tony Fish, AMF Ventures (Moderator) Russ McGuire, Sprint Jean Marc Frangos, BT Group Patrick McVeigh, Warburg Pincus & SoonR Russ Daniels, HP Web Services
關於 Mobile 2.0。地球上的人們在談論什麼？		3:50 - 4:20	Mobile Launch Pad Segment Introduction Peter Vesterbacka, Somebazaar
		4:20 - 5:20	Disruptive or New Business Models Daniel Appelquist, Vodafone (Moderator) Kaj "HeGe" Haggman, Nokia Peter Stark, Sony Ericsson Daniel Graf, KYTE.TV Atakan Cetinsoy, MyStrands

「為什麼我不能客製化或自由修改我的手機？」



圖片來源: <http://www.apple.com/iphone/features/index.html#phone>

iPhone 做到了！

#11 Customize Home Screen



影片來源: <http://www.apple.com/iphone/>



openmoko

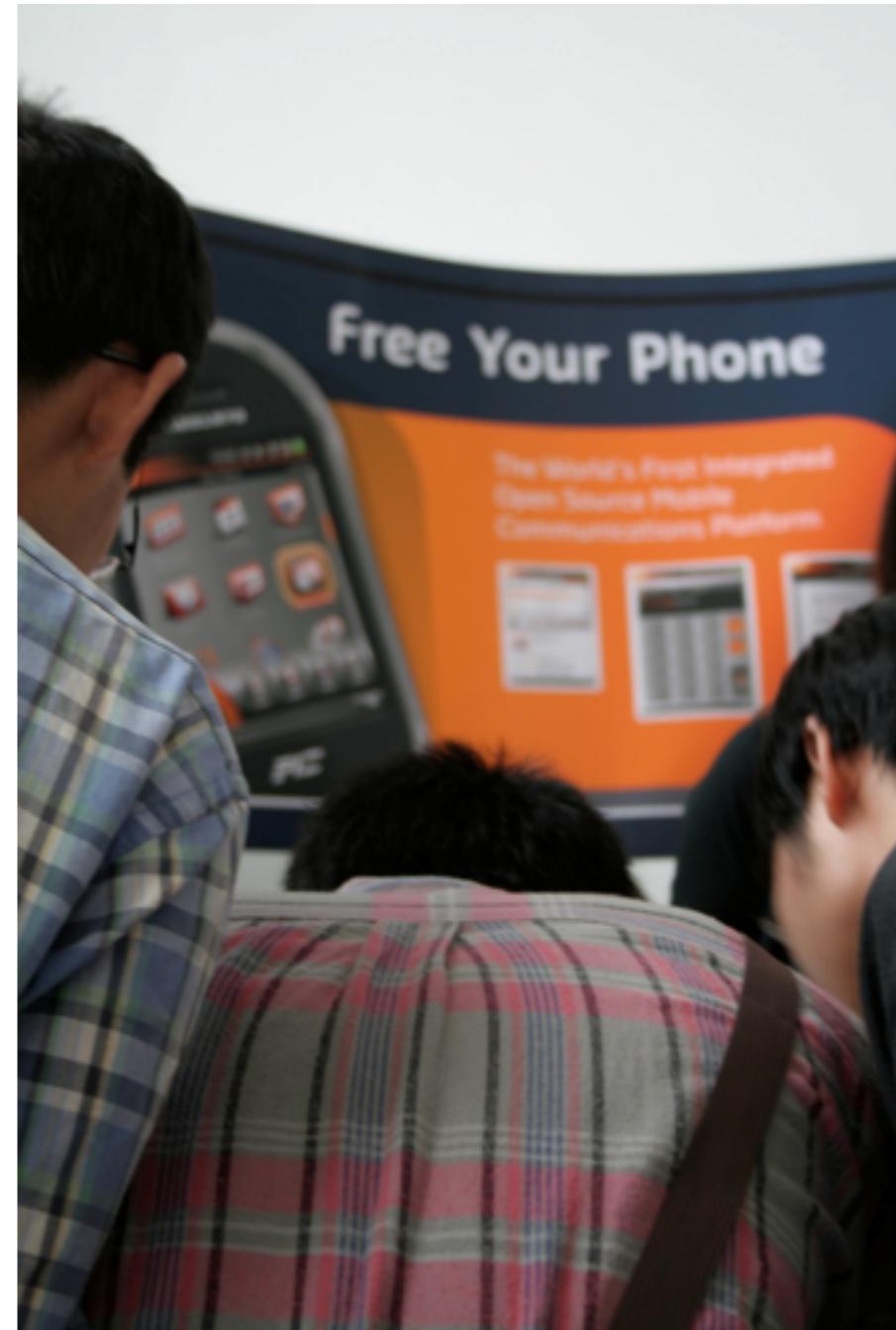
漢本
黑金

OpenMoko 專案

- 以 GPLv2 授權釋出
- 發展一個基於 Linux 的開放手機平臺
- OpenMoko 開發者社群
- 於西方具有相當高的知名度
- 開放源始碼適合教育與研究

OpenMoko 不只是技術

- Community
 - 社群活動參與贊助
 - 活動紀錄與影片
- OpenMoko Education
 - 學校課程
 - 學生實習



Trolltech axes the Greenphone

By [David Meyer](#)

Special to CNET News.com

Published: October 22, 2007, 11:23 AM PDT

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The mobile Linux development company Trolltech says that it has sold out of its Greenphone reference handsets and that it will not reorder further units, because there are now suitable alternatives in the marketplace.

Trolltech launched [the Greenphone](#) in 2006, the first fully open handset designed for the development of open-source applications. Running on Trolltech's Qtopia platform, the device was supposed to stimulate the growth of mobile Linux, and the company is adamant that it has done just that.

"We did it to catalyze an ecosystem, as well as for internal use," said David Bialer, the manager of Trolltech's partner community.

Bialer said the 2-year-old architecture of the Greenphone was no longer adequate, so Trolltech would like to target "more modern 3G phones." The [OpenMoko Neo1973 device](#), which can now run a port of Qtopia, also appears to be filling much of the need for hackable Linux handsets.



**Feature
Photo:
camera**

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Eckel pri
ViviCam
[View thi](#)

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SAID**

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apps I'm using on a daily basis. If the e-mail app doesn't have auto-complete, I can add it."

As with the Palm, OpenMoko owners can expect a wealth of third-party applications. But unlike the languishing Palm platform, Laroia points out, the OpenMoko community can customize, evolve and keep OpenMoko alive on future devices even if FIC, the maker of the Neo1973, goes the way of the Newton.

"Open source makes it so that applications created for one device can move to another one," he says.

Eager to put the promise of a Linux-powered iPhone killer to the test, I purchased a prerelease Neo1973 GTA01Bv4 from the [OpenMoko website](#). My kit, which came with some extras for developers, cost \$450. The consumer version of the phone will cost \$300.

Even before the phone showed up, I knew it wasn't going to be a smooth ride. Perhaps the "I have been warned" check box required by the website for purchase should have given me pause, but I pressed ahead and got it anyway.

Even before the phone showed up, I knew it wasn't going to be a smooth ride. Perhaps the "I have been warned" check box required by the website for purchase should have given me pause, but I pressed ahead and got it anyway.



The Neo1973 is the first piece of phone hardware designed to run the open source OpenMoko software platform. Although not yet ready for prime time, the Linux-based mobile OS has hackers excited.

Photo: Paul Adams

PGA National Resort and Spa,
Product Release - T-Mobile Sidekick
(Motorola)

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OpenMoko 手機

- 第一個實體產品 Neo1973
 - OpenMoko專案所推出的第一支實體手機
 - 由臺灣的大眾電腦（FIC）公司製造
 - 針對開發者（非消費者）
- 第二個實體產品 Neo FreeRunner
 - 更快的處理器
 - 3D 以及動作感測功能
 - WiFi

NeoI973 硬體規格

- Samsung S3C2410 with 266MHz
- 64MB NAND flash
- 128MB SDRAM
- 2.8" VGA TFT LCD with touchscreen
- USB 1.1
- Hammerhead PMB 2520 AGPS
- TI Calypso GSM/GPRS (2.5G) modem
- Bluetooth 2.0
- Micro SD slot
- Audio codec



Neo FreeRunner

- Neo FreeRunner 正式在 2008 CES 發佈
- 延續第一代產品「Neo 1973」的新版本
- 參考了大量社群開發者的意見回饋
- Neo FreeRunner 是開源手機概念的另外一個實作：手機不預載任何的應用軟體，出廠時只預載一個安裝器（installer），當使用者拿到手機後，可以透過安裝器的選單安裝「自己想要、也會用到」的應用程式。



全世界第一個 開源手機體驗實驗室

想不想來實際體驗看看呢？

挑戰自我 腦力激盪

在科技史上留名的最佳途徑

可自由使用周邊設施

不定期舉辦座談會

跳脫傳統的束縛

獨一無二量身訂作
個人手機軟體

只有自己設計的才能滿足自己的需求

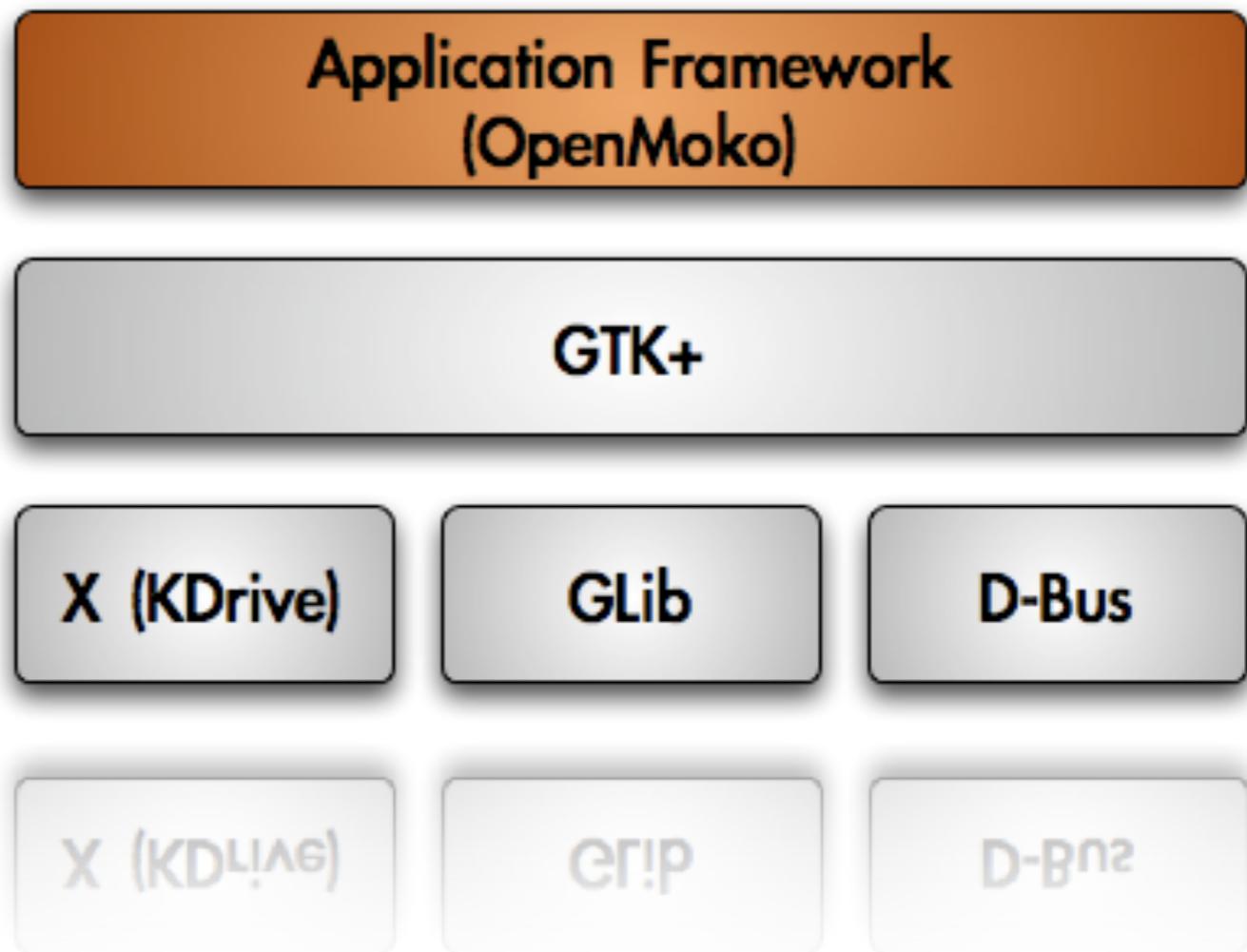
- 為了與台灣的 open source 社群互動並回饋社群，OpenMoko 特別贊助成立了 OpenLab。
- 這是一個實體的開放空間
- 與 OpenMoko 開發者對話、了解如何參與 OpenMoko 專案、與社群朋友聊天聚會。
- OpenLab 歡迎社群朋友自由使用，也能將這裡當做技術交流的固定聚會場所。

OpenMoko Platform

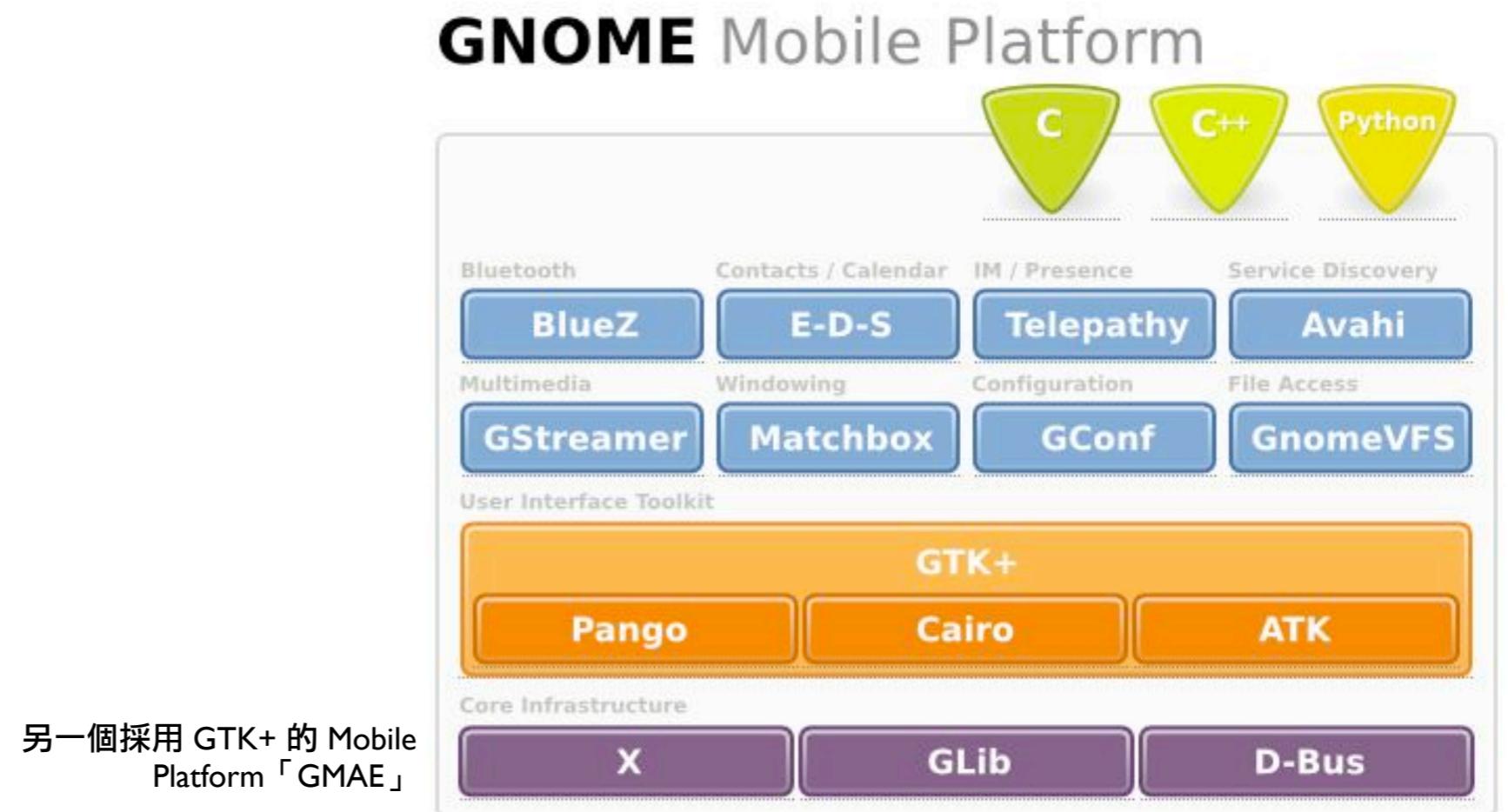
OpenMoko 技術框架

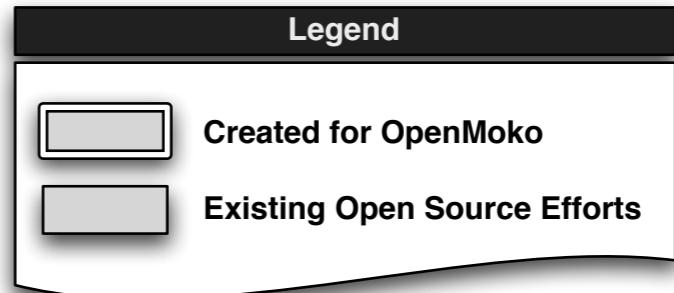
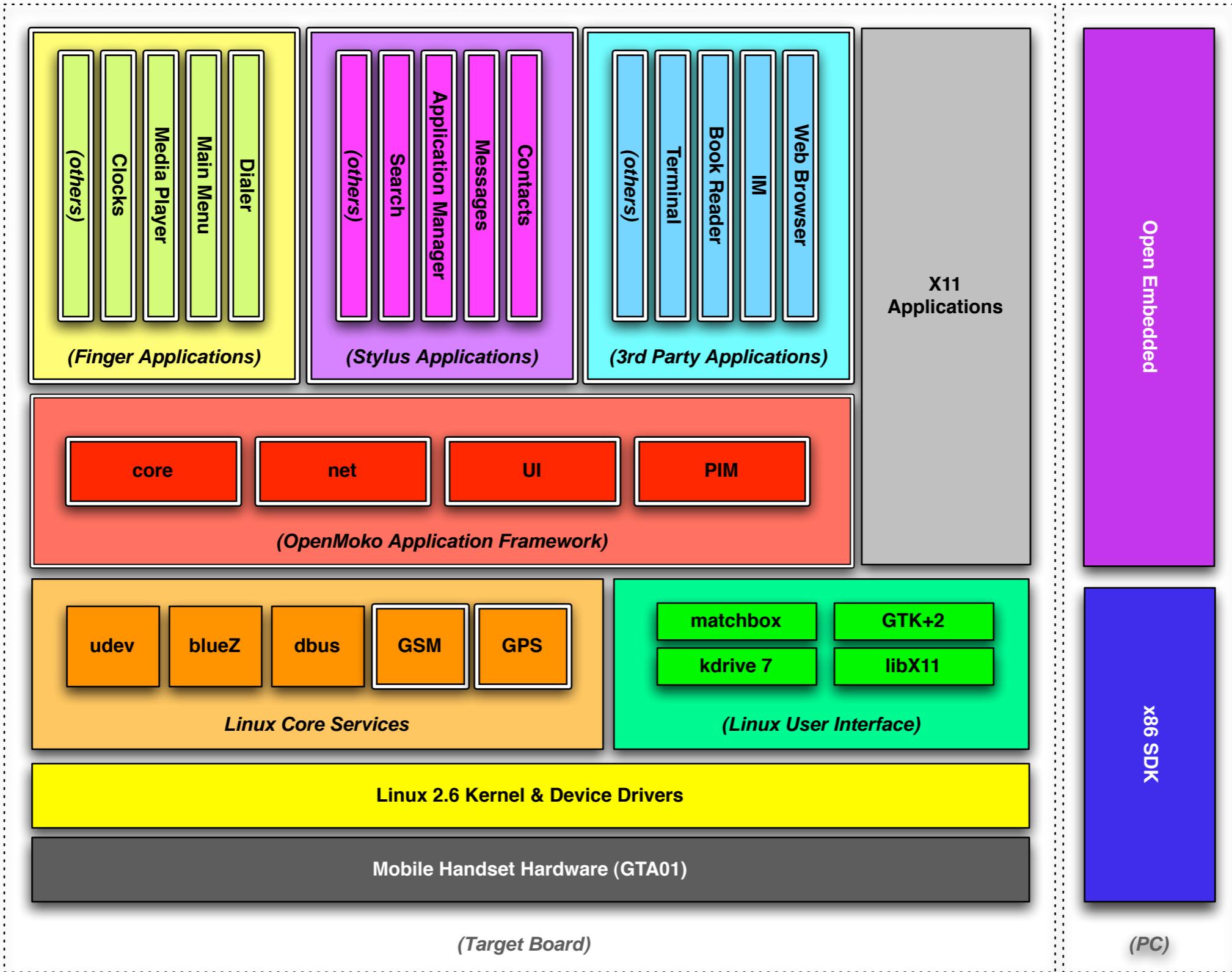
- KDrive 一個小型的 X server 實作，主要是針對 embedded Linux 的應用所實作的版本。KDrive 並不基於以往的 XFree86 程式碼，而是由 Keith Packard 所實作的新版本；目前，KDrive 已被應用在許多 embedded system 的專案中。

- D-Bus；使用 D-Bus 來取代傳統的 IPC，並與外部工具（eg. mjpegtools）做整合。D-BUS 是一種 'message bus'，未來將取代傳統 IPC 的使用。
- GLib；Glib 是 GTK+ 計畫下的「副產品」，Glib 提供一組簡單易用且可攜性佳的 data type 定義。



- GTK+ 是一套跨平臺的 widget（圖形元件）程式庫，用來建立圖形化界面（GUI）。OpenMoko 平臺採用 GTK+ 做為解決方案。
- GTK+ 採取 LGPL 授權，是 100% 的 FOSS 專案，不受任何商業限制，因此，未來的行動裝置的圖形介面應用上，將會是非常重要的解決方案。





OpenMoko application framework 提供四個核心程序庫：

- libmokocore：核心程序庫，提供 OpenMoko 應用程序間的通訊。
- libmokonet：通訊程序庫，提供 GSM、GPS、Bluetooth 等功能。
- libmokopim：PIM（Personal Information Management）程序庫，提供個人資料管理功能。
- libmokoui：UI（user interface）程序庫，提供OpenMoko 主要的界面設計，包含：containers、widgets 與 dialogs。

由 OpenMoko 提供的 GSM modem 開源軟體： gsmd

- 包含 libgsmd 供開發者使用
- libgsmd-tool: 可執行 Power On/Off、answer incoming call、dial out 與 hangup call（掛斷）的基本功能

GSM 系統使用一種稱之為 GSM modem 的裝置（也就是我們耳熟能詳的「數據機」）來做電話的「外撥（dial out）」與「接聽（answer）」功能。

Linux 手機能打電話與接聽電話，必須將 target device 外接 GSM modem，並透過 GSM modem 的指令集（AT command）來對 GSM modem 下撥號或接聽指令。

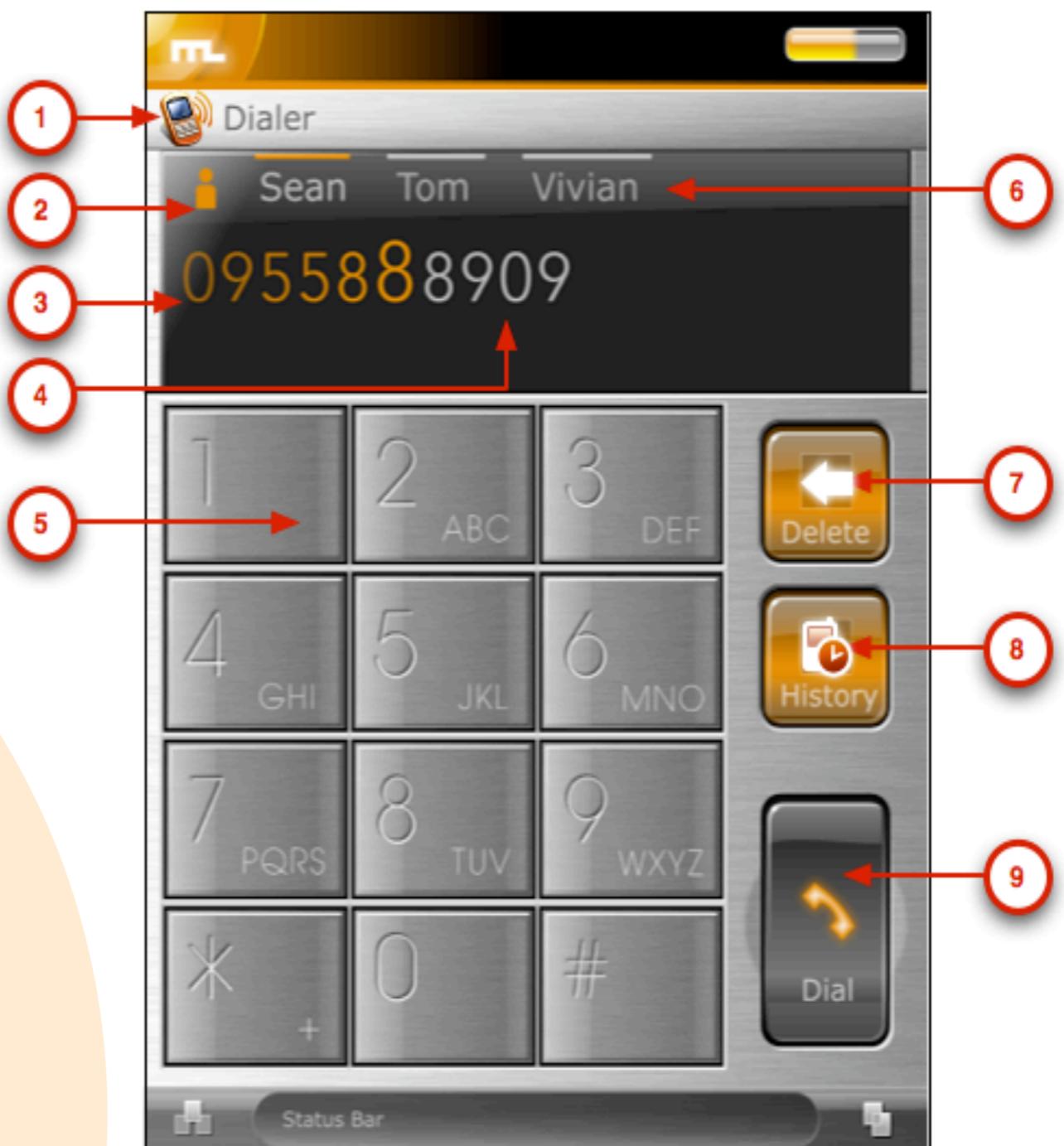
GSM modem 與 target device 是以 UART（RS-232）介面連接，因此需要一個與 GSM modem 溝通的 RS-232 通訊程式。

OM AF

1. Bar Widgets
2. Menu Widgets
3. List Widgets
4. Scrolling Widgets
5. Preview Widgets
6. Field Widgets
7. Dialog Widgets
8. Input Method Widgets
9. Other Widgets

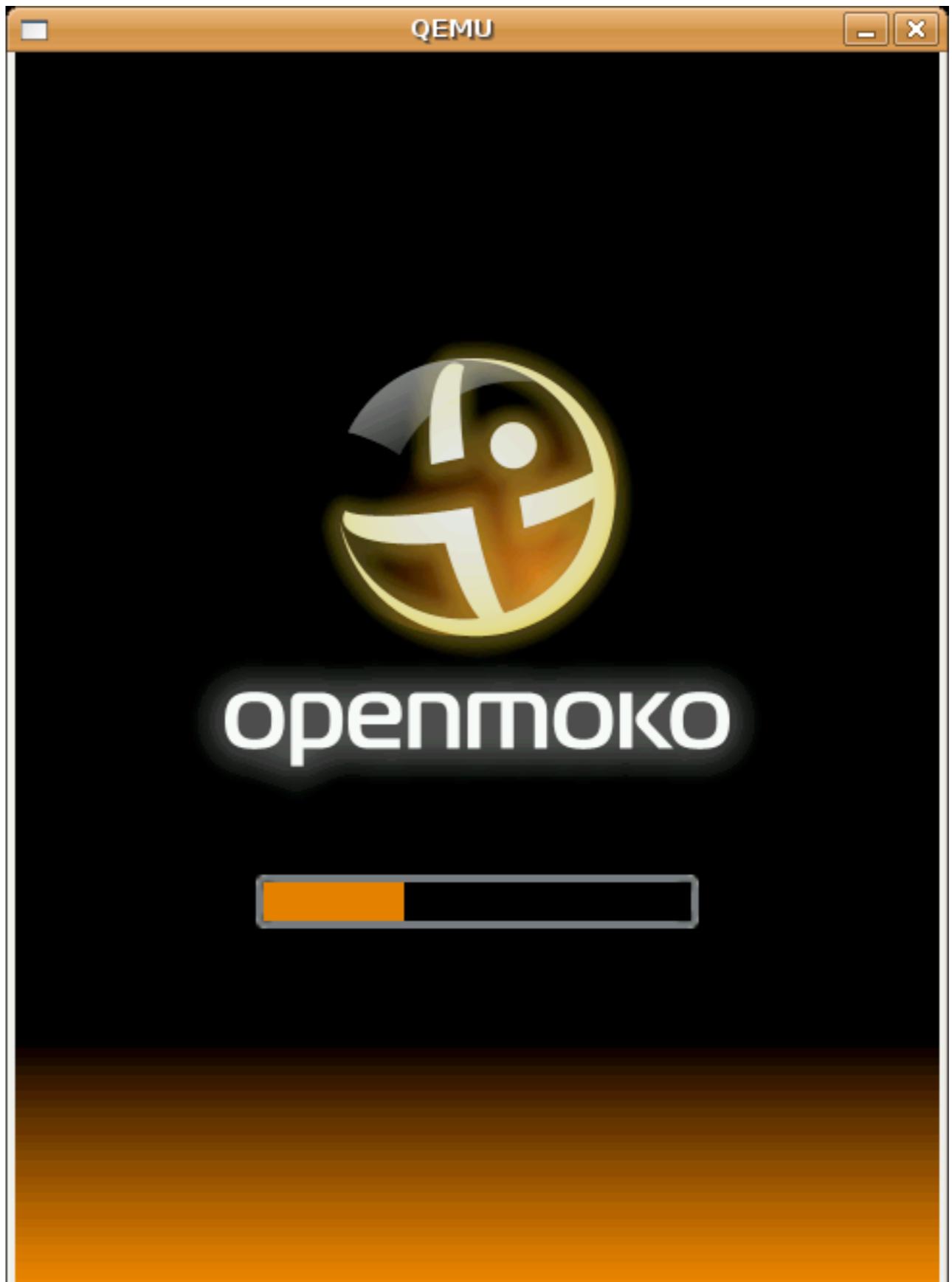


- 撥號器
- 基於 OM AF 2007

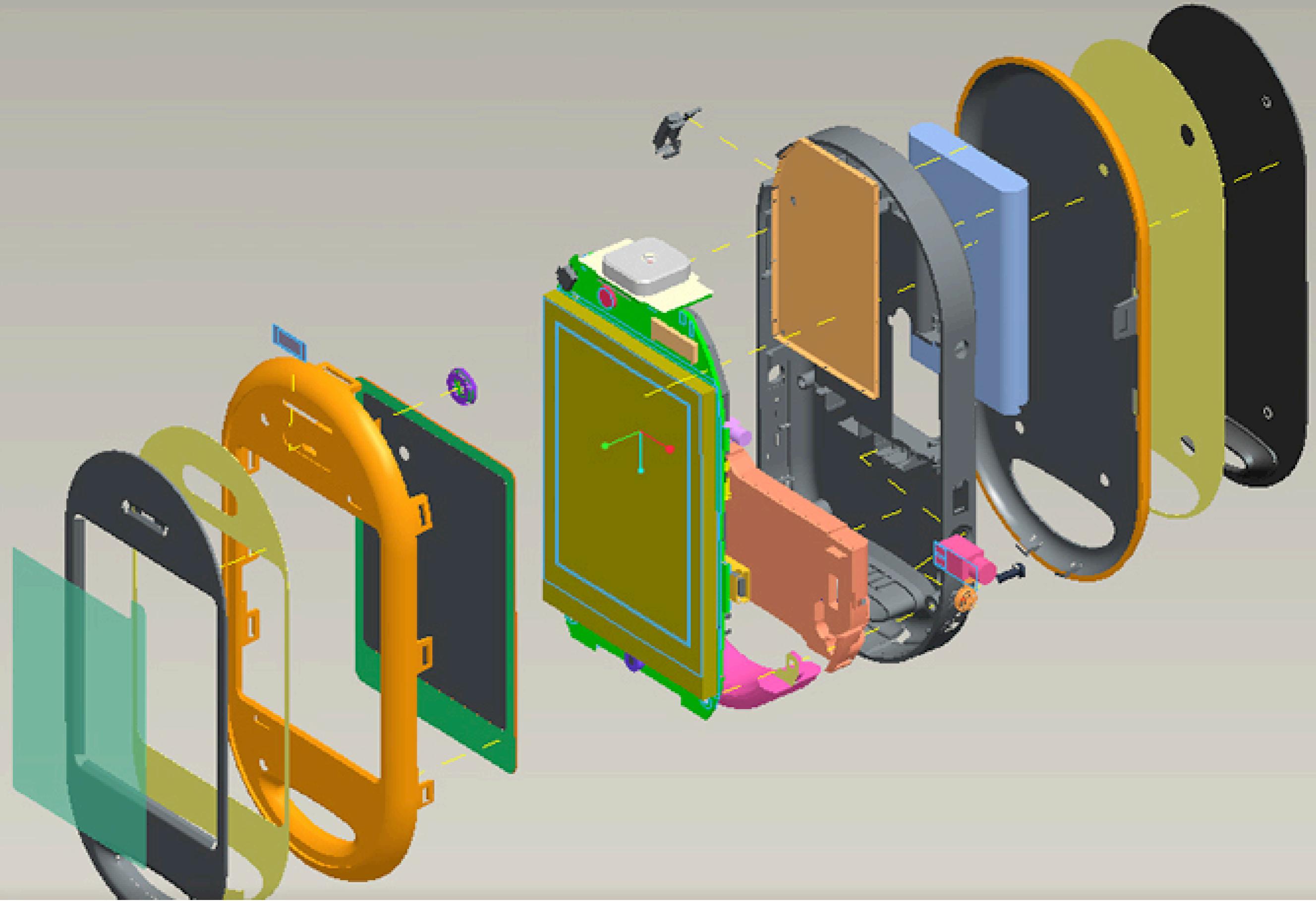


QEMU 是一個可以模擬 x86、x86_64、ARM、SPARC、SPARC64、PowerPC、PowerPC64、MIPS、m68k 與 SH-4 處理器的 open source 軟體。簡單說，QEMU 就是一套虛擬機器 (virtual machine) 的軟體。

qemu-neo1973 是由 OpenMoko 基於 qemu 所發展的手機模擬器，支援 GSM modem 的模擬功能。



open











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svn: trunk/src/target/gsm

Current directory: [\[svn\] / trunk / src / target / gsm](#)Current revision: [4091](#)Jump to directory revision: Files shown: [8](#)

File	Rev.	Age	Author	Last log entry ▾
doc/	96	16 months	laforge	some further gsmd/libgsmd work
include/	4091	82 minutes	erin_yueh	gsmd: get battery status (Sudharshan S)
logs/	40	17 months	laforge	first compiling (unfinished, not-working) version of userspace gsm infrastructur...
src/	4091	82 minutes	erin_yueh	gsmd: get battery status (Sudharshan S)
ChangeLog	3719	2 months	chris	* src/util/event.c: (inds_handler): Back out change - sms->stat ...
COPYING.library	546	13 months	laforge	- Add copyright / license notice to all source code files - Add some 'get operat...
COPYING	546	13 months	laforge	- Add copyright / license notice to all source code files - Add some 'get operat...
configure.ac	520	13 months	laforge	fix lots of header-related issues with autotools
autogen.sh	338	14 months	mickey	gsm: modernize autotool framework and pkgconfigize it
Makefile.am	338	14 months	mickey	gsm: modernize autotool framework and pkgconfigize it
libgsmd.pc.in	338	14 months	mickey	gsm: modernize autotool framework and pkgconfigize it
README.txt	96	16 months	laforge	some further gsmd/libgsmd work

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讓 Linux 社群都看到你的名字

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