

Android: Explained by Numbers

An introduction to
that Google Smartphone
Operating System

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What is Android?

Introduction to
the Android Platform,
the eco system and
Android application development

About Manfred Moser

- Long time Linux user and Java developer
- Open source developer and author
- Consulting and custom development for Android at simpligility technologies inc.

Android: Explained by Numbers

2007

And

78

2007 and 78

Android released 2007 by the

Open Handset Alliance

78 handset manufacturer, mobile network operators, semiconductor companies, software companies...

China Mobile, NTT Docomo, Sprint, T-Mobile, Vodafone, ARM, Broadcom, Freescale, Intel, MIPS, Nvidia, Qualcomm, TI, Acer, Asus, Garmin, HTC, Huawei, Kyocera, Lenovo, LG, Motorola, NEC, Samsung, Sharp, Sony Ericsson, Toshiba, ebay, Google ...

Android: Explained by Numbers

200 000

And

80 000

200 000 and 80 000

Approximately 200 000 new devices are
activated every day world wide

More than 80 000 applications are available
for download

Android: Explained by Numbers

3 or more

> 60

Between 6 and 8

3 or more, >60 & between 6 and 8

Lawsuits launched directly or indirectly

Oracle vs Google

Apple vs HTC

Microsoft vs Motorola

Well beyond 60 different hardware devices are available running Android

Between 6 and 8 of the top 10 smart phones of 2010 are Android devices

Android: Explained by Numbers

2

22

25.5

2, 22 and 25.5

Android is 2nd most used smartphone operating system world wide

Gained 22% from Q4 2009 to Q4 2010

Now at 25.5% after Symbian and before iOS

Enough Numbers

What is Android?

That Google Smartphone Operating System
With the Green Robot Mascot!?

That Google smartphone OS?

Not quite Google alone.

First: Android Inc.

Then: Google

Now: Open Handset Alliance

That Google smartphone OS?

Not quite smartphone alone.

Navigation devices,
Tablet/Slate computers,
Tvs/ settop boxes (Google TV),
Embedded devices (e.g. cars, helicopter..)

That Google smartphone OS?

Not quite an operating system only.

Linux kernel

Custom Linux distribution

Dalvik VM

Middleware (sort of like application server)

API's

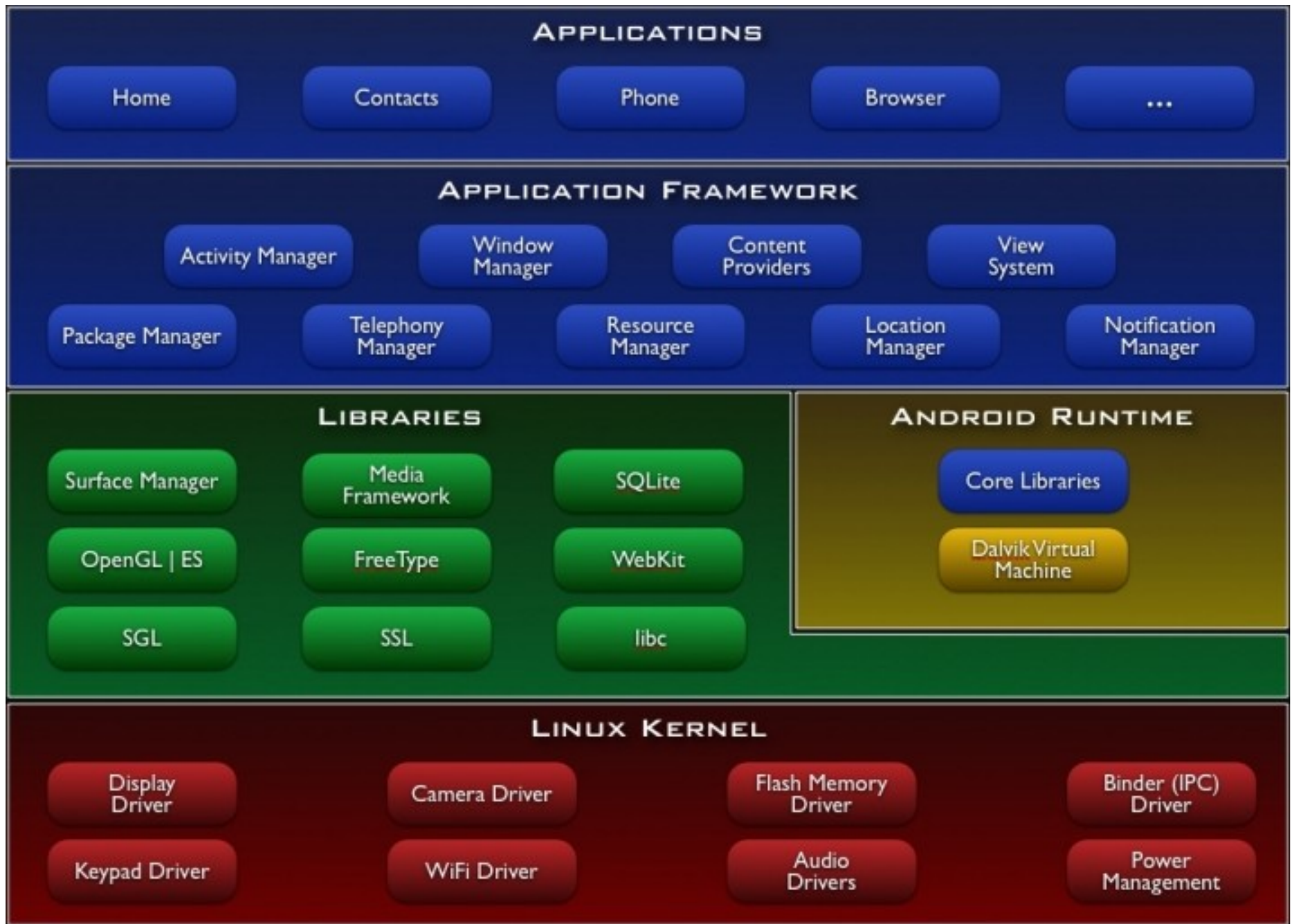
Standard applications (capabilities)

SDK

further tools

Capabilities

- Audio/Video
 - Telephony
- Accelerometer
- TouchScreen
 - Keyboard
- USB connection
 - Wifi
 - GPS
 - Compass
 - Camera(s)
 - and more



Features

Home, Back, Menu and Search Buttons
Home Screens
Widgets, Folders, Launchers

Application Development

Default API and tooling around Java

Easy platform to start developing

All tools are available for free

Open source?

Yes. <http://source.android.com>

Apache v2 mostly, also some GPL

Many core applications are as well
e.g. contacts, calendar, browser

Including compatibility test kit

How to distribute your application

On your website

On Android market

On other markets
(slideme, andappstore, getjars...)

Hardware

Well understood by ODM

Cheap, custom hardware possible

Very extendable

E.g. 100\$ tablet

Opportunities

Smartphones are fastest growing technology ever

Android growing faster than anything else

Lowest cost to entry software AND hardware

Lots of vertical and local opportunities

Ideas

Forestry/GPS related

Marine related

Lots of other verticals

Local content/applications

What is your idea?

Summary

Modern platform

Open source

Many players

Rapid growth

More to come

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