

# Mobile Application Development

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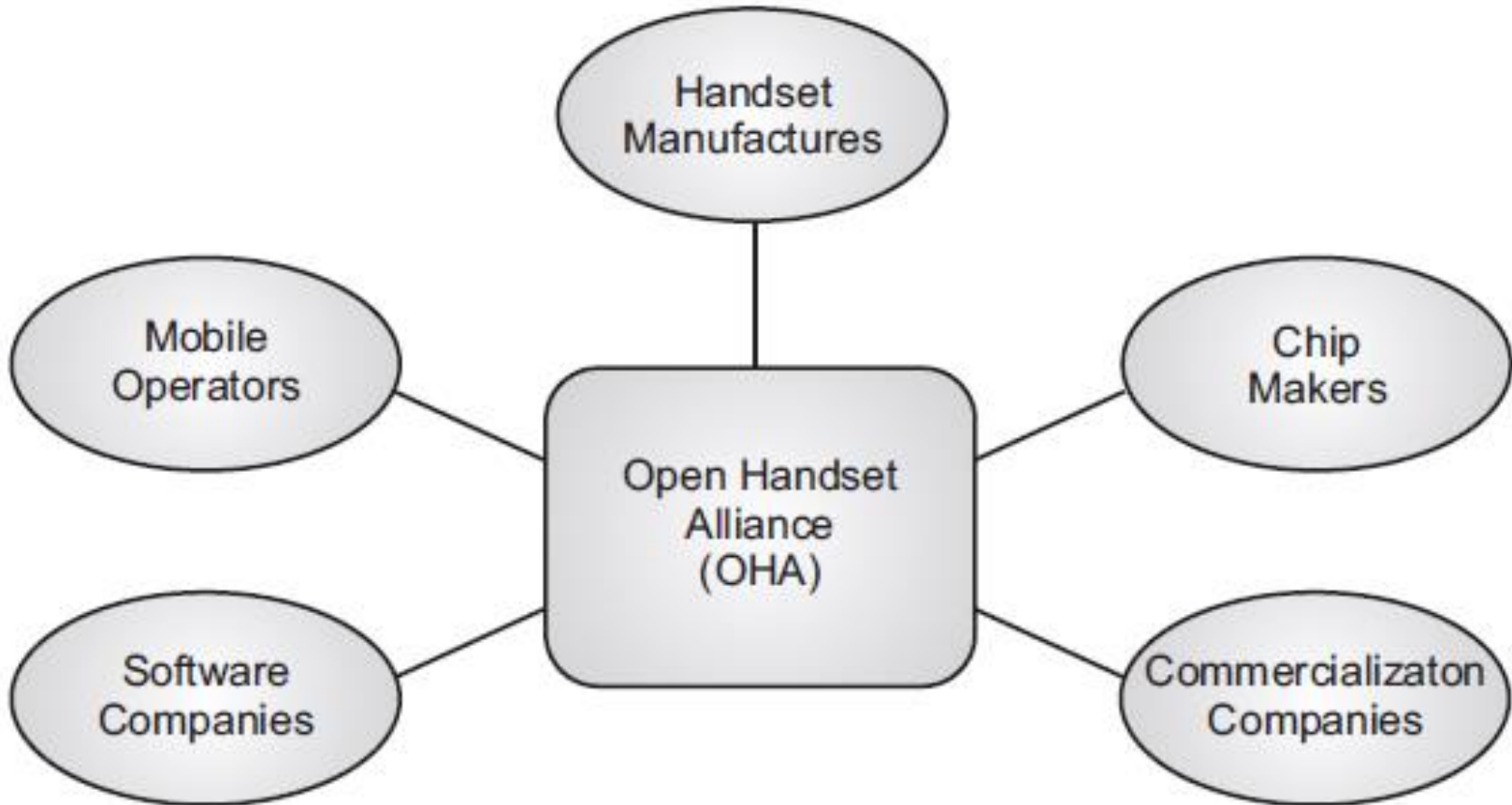


# What is Android?



- Android is a mobile operating system developed by Google
- The Android is a powerful Operating System (OS) and it supports large number of applications (apps) in smart phones
- The hardware that supports android software is based on ARM architecture platform.
- The Android has got millions of apps available that can help us managing our life one or other way

# Open Handset Alliance (OHA)



# Android Ecosystem





# NEED OF ANDROID

- **Desktop**
- **Connectivity**
- **Browser**
- **Open to Carrier**
- **Market**
- **Future**
- **Muti-Notification**
- **Google Integration**



- **Open Source**
- **Endless Personalization**



# Features of Android

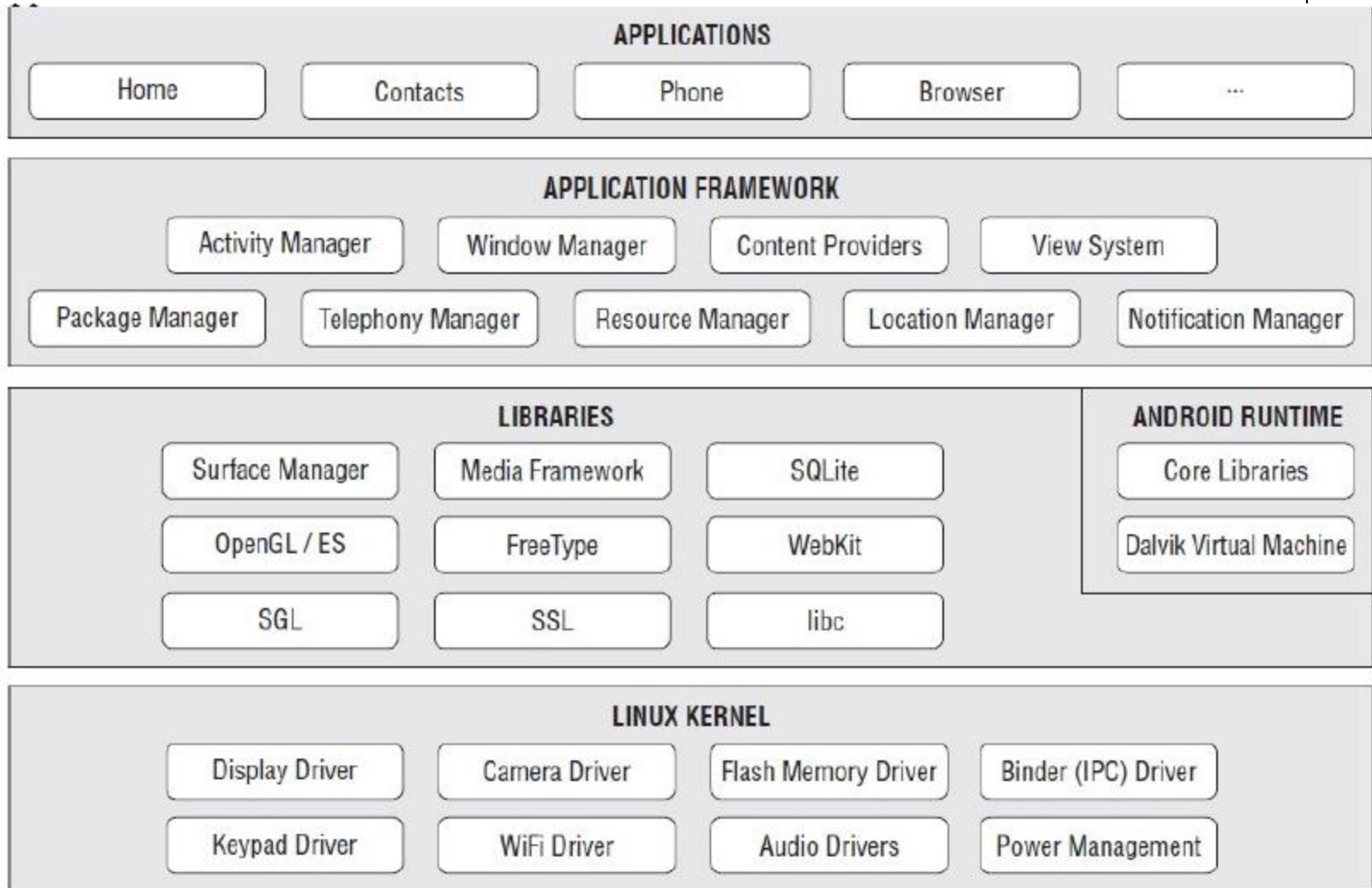
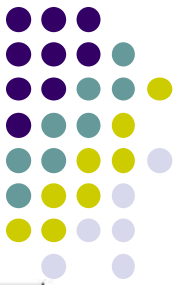
- **Storage**
- Multitasking
- **Web Browser**
- **Open Source**
- **Accessibility**
- **Media Support**
- **Streaming Media Support**
- **Voice Based Features**



- **Multitouch**
- **External Storage**
- **Video Calling**
- **Handset Layout**
- **GCM**
- **Wi-Fi Direct**



# ANDROID ARCHITECTURE





# Advantages Android

- **Supports 2D, 3D graphics**
- **Supports Multiple Languages**
- **Faster Web Browser**
- **Video Calling**
- **Open Source Framework**
- **Uses of Tools are Very Simple**
- **Availability of Apps**
- **Great Social Networking Integration**



- **Better Notification System**
- **Updated User Interface Design**
- **At a Time Applications**
- **Low Chance of Crashing**
- **Stability**
- **Multitasking**



# Disadvantages Android

- **Need internet connection**
- **Advertising**
- **Wasteful Battery**
- **Many applications contain virus**
- **Slow response**
- **Heat**

# Android Versions



- **Android 1.0 (Android 1.0, the first commercial version of the software, was released on September 23, 2008.)**
- Access to web email servers, supporting POP3, IMAP4, and SMTP.
- Camera support but— however, this version lacked the option to change the camera's resolution, white balance, quality, etc.
- Wi-Fi and Bluetooth support.
- Notifications appear in the Status bar, with options to set ringtone, LED or vibration alerts.
- Supports instant messaging, text messaging, and MMS.

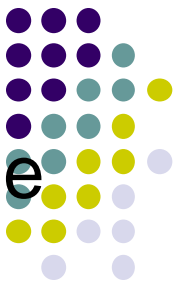


- Android 1.1
- Ability to save attachments in messages.
- Details and reviews available when a user searches for businesses on Maps.
- Support added for marquee in system layouts.

- Android 1.5 - This was the first release to officially use a codename based on a dessert item ("Cupcake")
- Support for Widgets.
- Video recording and playback in MPEG-4 and 3GP formats.
- Ability to upload videos to YouTube.
- Supports animated screen transitions.
- Auto-rotation option



- Android 1.6 Donut
- Voice and text entry search enhanced to include bookmark history, contacts, and the web.
- Support for WVGA (**Wide Video Graphics Array**) screen resolutions.
- Ability for developers to include their content in search results.
- Supports indicators of battery usages allows users to determine which applications/services takes most battery power.
- New control panel for setting up and configuring Virtual Private Network (VPN).





- Android 2.0/2.1 Éclair
- Improved typing speed on virtual keyboard
- Numerous new camera features, including flash support, digital zoom, scene mode, white balance, color effect and macro focus
- Bluetooth 2.1 support.
- Microsoft Exchange email support, with combined inbox to browse email from multiple accounts in one page.

