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Growth of Android Software Platform for Mobile Devices and Smartphones

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Abstract: This paper is to explore different Perspectives, features & suitability of android for mobile devices & compares the Android, Symbian & Windows mobile OS. Mobile phone has been used the several user from the few years. Globally, we are compared of a usage between PCs and mobile device out of the world. The increasing Importance of mobile devices has activated concentrated competition among technology giants, like Symbian, Google, Microsoft, Apple, and Nokia in a market share for mobile platform. So Google launched Android, an open source software platform for mobile devices consisting of an operating system. In this paper that we are trying to show what is the immense of the market for android Phone or Software and basic concepts uses for android to introduce on it.

Keywords: Android, Dalvik, Operating System, Google.

I. INTRODUCTION

In this paper we have providing entropy referring android software. Study the present conditions of Android OS and exposes the expected future market potentials for Android. Android is Google's new open-source platform for mobile devices. Planned to be a complete software stack, it contains an operating system, middleware, and core applications [1].

All applications can potentially interact with the underlying mobile device and share their functionality with other applications this design is very encouraging for developers and users of new applications, as witnessed by the growing Android "market" [2].

The Android OS uses virtual machines to run each application as its own process. First, no application is dependent upon another. Second, if an application crashes, it shouldn't affect any other applications running on the device. Third, it simplifies memory management [3]. Many people is used the android phone and android application own your mobile. Because whole features available in android application and software. Then why they are selected the other software or phone. So we have explained the growth of android either in market and how to develop the application in android.

II. OVERVIEW OF ANDROID

In Android's application model [1], an application is a package of components, each of which can be instantiated and run as necessary (possibly even by other applications). Components are of the following types:

- **Activity** components form the basis of the user interface; usually, each window of the application is controlled by some activity.
- **Service** components run in the background, and remain active even if windows are switched. Services can expose interfaces for communication with other applications.
- **Receiver** components react asynchronously to messages from other applications.
- **Provider** components store data relevant to the application, usually in a database. Such data can be shared across applications [4].

The Android platform consists of several layers which provide a complete software stack. Android applications are Java-based and this Factor entails the use of a virtual machine VM environment, with its

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advantages. Android uses its own VM called Dalvik, which interprets and executes portable Java-style byte code after transforming it [1]. Component classes and methods The Android SDK provides a base class for each type of component (Activity, Service, Receiver, and Provider), with methods (callbacks) that are run at various points in the life cycle of the associated component. Each component of an application is defined by extending one of the base classes, and overriding the methods in that class. In particular: [1]

- The Activity class has methods that are run when some activity calls this Activity, or returns to this activity.
- The Service class has a method that is run when some component binds to this service.
- The Receiver class has a method that is run when a message is sent to this receiver.
- The Provider class has methods to query and update the data stored by this provider.



Fig.2.1 Android Screen

III. GENERAL & FILE OPTIMIZATIONS

Java applications for Dalvik get compiled like other Java programs with the same compilers and mostly the same toolchain. Instead of compressing and packaging the resulting class files into a .jar file, they are translated into .dex files by the dxttool. These files include the Dalvik byte code of all Java classes of the application. Together with other resources like images, sound files or libraries the .dex files are repackaged into .apk files.[7]

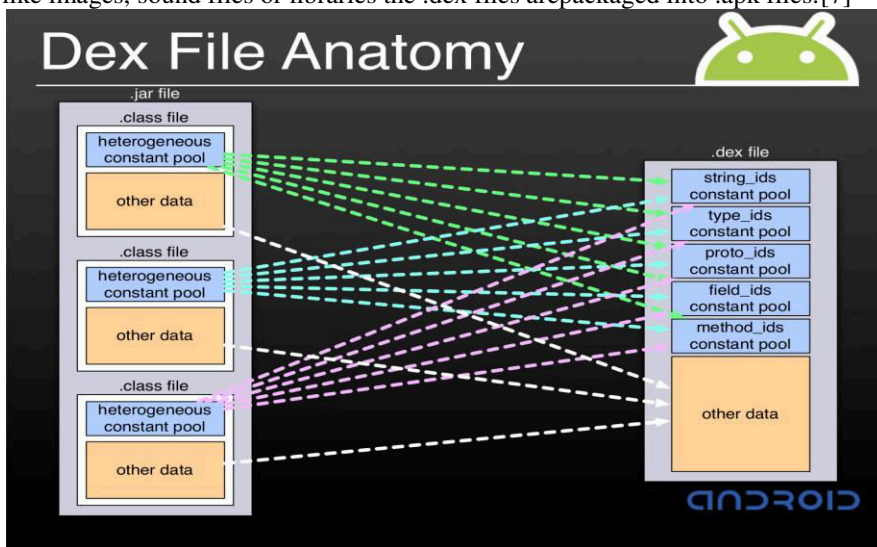


Figure 3.1 File Structure

IV. ANDROID MARKET SOFTWARE

The Android Market, online softwareStore, is developed by Google for AndroidDevices. It was made available to users on October 22, 2008.

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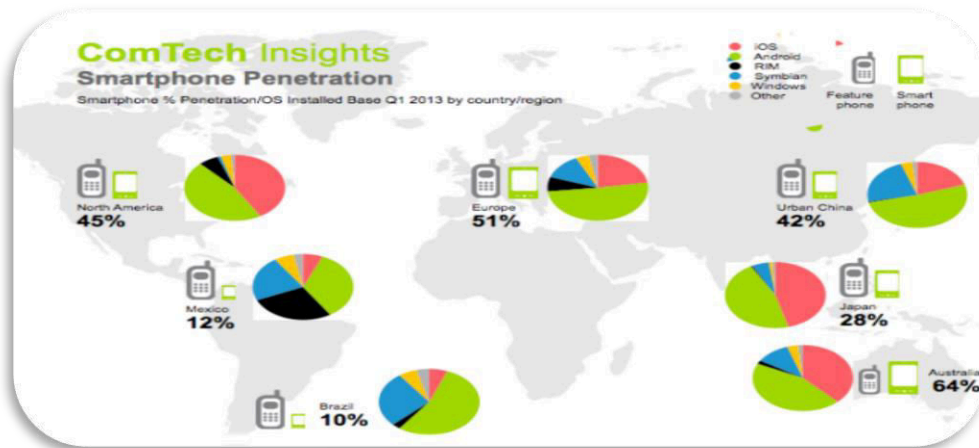


Figure 4.1 Global smart phone sell

Most of the Android devices come with preinstalled “Market” The developers of priced applications receive 70% of the application price and remaining 30% distributes application. As of May 04, 2010, Android appshit around 49,000 applications which were around 12,500 in August 2009 and 20,000 in December 2009 [3].

a. USED SMARTPHONE TO ACCESS EMAIL

Ranging from 75% in the last month in US, to 17% in India *Nielsen* – “The mobile Consumer” (Feb 2013). **78% of US Email Users Will Also Access Their Emails via Mobile by 2017** – *Forrester Research* “Email Marketing Forecast 2012 – 2017” (2012).[3]

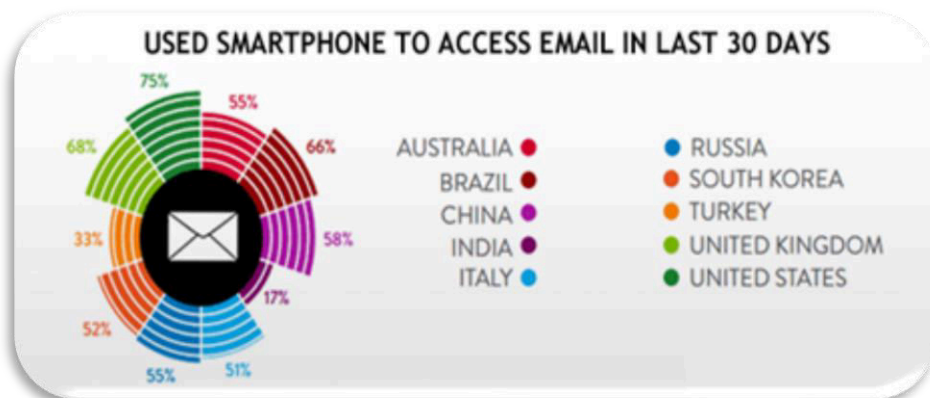


Figure 4.2 Used Smartphone to Access mail

V. CONCLUSION

In this work we have reviewed details of Android, & studied features as well as Suitability of android for mobile devices. Android market share is worked in smartphone and mobile devices. We have providing information regarding country
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people use email access and some researcher report we have showing detail in figures. In this paper we have giving market interest for Android software. It is providing information regarding smartphone and android uses of the various countries. Forrester Research is provided the report regarding development and uses of the android phone and smartphone. But various countries people are used for e-mail transactions and define the percentage of different countries.

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BIOGRAPHY



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