

MOBILITY OF COMMUNICATION THROUGH VARIOUS MOBILE OPERATING SYSTEMS WITH THE TARGET OF SMART PHONES

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Abstract:- Mobile phone became one of the major gadgets for human life. The day of the human being starts with the alarm rang by the mobile phone. Most of the persons literate or illiterates are using mobile phones because of its usage and flexibility features. The mobile phone was first introduced to improve communication. "Mobility of communication" was introduced with mobile phones. Martin Cooper introduced a hand held wireless set in the year of 1970 at Motorola Research labs. The main intention of introducing mobile phone is to avail the hands free communication and mobility. The separate chip based operating system was developed for the sake of a mobile phone communication. Due to The mobile phone is a major required component for mobile the simplicity and features nowadays a layman to an industrialist using mobile phones. So it became necessary to the mobile manufacturing companies to provide better features for the mobile phones [2]. There are many operating systems that are available in the market for the development and improve the functionality of the mobile phone. The integrated features of Mobile Operating Systems allow integrating many features such as music, camera, and internet connectivity and browser options. The mobile Apps that are available in the market are very useful and easy to operate. So now a day's most of the transactions and operations are taken place through Mobile Apps.

Key Words: Mobility of Communication, wireless communication, android, apple, hassle free communication.

Introduction:

Mobile phones are small in size and supports lot of features. This is an integrated circuitry board that integrates the set of features such as music, camera, internet browsing, and data sharing etc...[1]. In the 1970's mobile phone was first introduced with the wireless communication. In 1980's the mobile phone was introduced in to the market [3]. The mobile phone needs a separate operating system. The operating system should support a set of operations. There are different operating systems available to support the mobile operations. The

operating systems such as Android, Bada, BlackBerry, iPhone, MeeGo, Palm, Symbian, webOs, Windows Mobile etc...

Literature Survey:

The mobile phones are introduced to increase the mobility of communication. In 1970's first generation of mobile phones are introduced with wireless communication. The span of 20 years ie 1973 to 1993 implements embedded systems for the functionality of mobile phones [4]. The second generation of mobile phones is GUI Based Mobile Phones, most of the features are implemented with images, bitmaps, and other pictures, different types of mobile operating systems are introduced in between 1993-1999 [5]. Those are Apple, IBM Simon, Palm Pilot, Symbian, and Nokia. The third generation of mobile phones is smart phones. The decade of 2000 to 2010 is the most successful decade for the mobile phones. The smart phone OS was developed by Symbian for Ericsson R380. The Kyocera is the software developed for the smart phone with Palm Os. The Microsoft introduces smart phone related operating system [6]. BlackBerry introduced a smart phone with more features. The nokia introduces Maemo OS for tablet N770.

The fourth generation is defined as the most advanced and internet based mobile phones. The mobile phones support most internet accessing features. And providing video calls [7]. The network supports 3G and 4G really changes the internet speed and provide the complete world in the palm.

Description of Popular Mobility Operating Systems:

About Android operating systems:

One of the most popular mobile operating system is Android, developed by Google. Android is primarily designed for the touch screen. The smart phones and tablets are efficiently executing with different features with the help of Android Operating systems [8]. First android based mobile was introduced in September, 2008.

There are so many android versions are released. The android is introduced in various versions.

Various Android versions are:

Sno	Android Version	year
1	Android 1.5: Android Cupcake	April 27, 2009.
2	Android 1.6: Android Donut	September 15, 2009.
3	Android 2.0: Android Eclair	October 26, 2009
4	Android 2.2: Android Froyo	May 20, 2010
5	Android 2.3: Android Gingerbread	December 6, 2010
6	Android 3.0: Android Honeycomb.	February 22, 2011
7	Android 4.0: Android Ice Cream Sandwich.	October 18, 2011
8	Android 4.1 to 4.3.1: Android Jelly Bean.	July 9, 2012
9	Android 4.4 to 4.4.4: Android KitKat.	October 31, 2013
10	Android 5.0 to 5.1.1: Android Lollipop.	November 12, 2014
11	Android 6.0 to 6.0.1: Android Marshmallow.	October 5, 2015
12	Android 7.0 to 7.1: Android Nougat.	August 22, 2016
13	Android 8.0 to Android 8.1: Android Oreo	August 21, 2017
14	Android 9.0: Android Pie	August 6, 2018

Table1: Versions of Android

Android Architecture

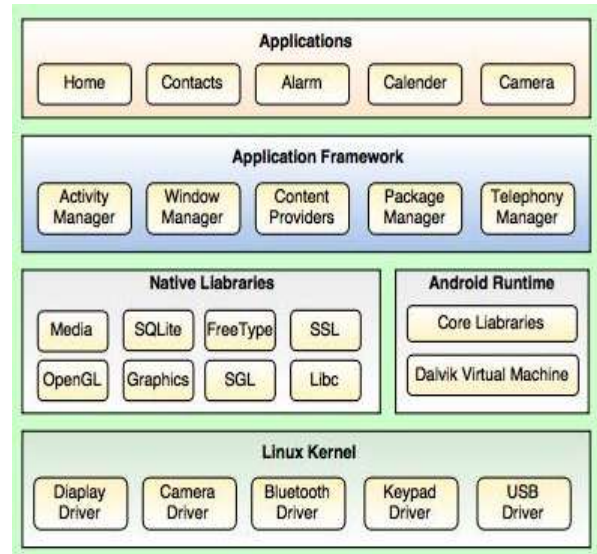


Figure 1: About iPhone Os

Apple is one of the most relevant hardware for mobile communication. The Apple introduce own operating system called iPhone IOS. It is the major operating system globally used by the different Apple Products such as iPhone, iPad, Apple Electronic Gadgets.

The iPhone IOS architecture:

The Apple IOS architecture contains layered architecture. The applications layer communicates with the user. The core services such as network and other communications are maintained in the second layer [9]. The Apple main aim is security, the OS maintains a separate layer for security services [10]. The detailed architecture is shown in the figure.



Figure 2: IOs Architecture

Conclusion:

Communication allows exchanging the ideas between 2 or more persons. The mobility of communication is the new era of communication. The mobility increased the availability of customers and users all the way. The restrictions with the standard communication systems such as land phone, system and all other things are eliminated. There are no cables for the connections. Completely the communication is depends on CDMA and protocols technology. Different types of operating systems that support mobile communications with a rich set of applications and made communication very easy.

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