

Conceptual Studies of Various mobile Operating System

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Abstract—

A *mobile operating system, also referred to as mobile OS, is an operating system that operates a Smartphone, tablet, PDA, or other mobile device. Modern mobile operating systems combine the features of a personal computer operating system with other features, including a touch screen, cellular, Bluetooth, Wi-Fi, GPS mobile navigation, camera, video camera, speech recognition, voice recorder, music player, near field communication and infrared blaster. Mobile devices with mobile communications capabilities (e.g. smart phones) contain two mobile operating systems - the main user-facing software platform is supplemented by a second low-level proprietary real-time operating system which operates the radio and other hardware. Research has shown that these low-level systems may contain a range of security vulnerabilities permitting malicious base stations to gain high levels of control over the mobile device.*

Keywords— *Introduction to Smartphone, Various Operating system of mobile.*

I. INTRODUCTION

A Smartphone (or smart phone) is a mobile phone with an advanced operating system. Smartphone's typically include the features of a phone with those of other popular mobile devices, such as personal digital assistant, media player and GPS navigation unit. Most have a touch screen interface and can run 3rd-party apps, and are camera phones. Later smart phones add broadband internet web browsing, Wi-Fi, Motion sensors and mobile payment mechanisms that are used to run the application Smartphone in fluencies manner. The operating system is used as bridge among hardware and software of the system

II. DIFFERENT TYPES OF OPERATING SYSTEM

ANDROID :-

Android (based on the Linux Kernel) is from. It has the largest installed base worldwide on smart phones. Most of Android is free and open source, but a large amount of software on Android devices (such as Play Store, Google Search, Google Play Services, Google Music, and so on) are proprietary ,licensed proprietary, closed source applications and contract (join the Open Handset Alliance) Android's releases prior to 2.0 (1.0, 1.5, 1.6) were used exclusively on mobile phones.

Android 2.x releases were mostly used for mobile phones but also some tablets. Android 3.0 was a tablet-oriented release and does not officially run on mobile phones. The current Android version is 5.0. Android's releases are named after sweets or dessert items:

Types of Android version:

- Cupcake (1.5)
- Donut (1.6)
- Eclair (2.0)
- Frozen Yogurt ("Froyo") (2.2)
- Ginger Bread (2.3)
- Honeycomb (3.0)
- Ice Cream Sandwich (4.0)
- Jelly Bean (4.1), (4.2), (4.3)
- KitKat (4.4)
- Lollipop (5.0)

Most major mobile service providers carry an Android device. Since HTC Dream was introduced, there has been an explosion in the number of devices that carry Android OS. From second quarter of 2009 to the second quarter of 2010,

Android's worldwide market share rose from 1.8% to 17.2%. On November 15, 2011, Android reached 52.5% of the global Smartphone market share. On September 2014 Android's global market share rose to 85%.

IOS

IOS is from Apple Inc. It has the largest installed base worldwide on Smartphone. It is closed source and proprietary and built on open source Darwin core OS. The Apple iPhone, iPod Touch, iPad and second-generation Apple TV all use an operating system called iOS, which is derived from Mac OS X. Native third party applications were not officially supported until the release of iOS 2.0 on July 11, 2008. Before this, "jailbreaking" allowed third party applications to be installed, and this method is still available.

Currently all iOS devices are developed by Apple and manufactured by Foxconn or another of Apple's partners. As of September 2014, iOS global market share was 11%.

Windows Phone

Windows Phone is from Microsoft. It is closed source and proprietary. It has third largest installed base on Smartphone behind Android and IOS. On February 15, 2010, Microsoft unveiled its next-generation mobile OS, Windows Phone. The new mobile OS includes a completely new over-hauled UI inspired by Microsoft's "Metro Design Language". It includes full integration of Microsoft services such as One Drive and Office, Xbox Music, Xbox Video, Xbox Live games and Bing, but also integrates with many other non-Microsoft services such as Facebook and Google accounts. Windows Phone devices are made primarily by Nokia, along with HTC, Samsung. As of September 2014, Windows Phone market share was 3%. Windows Mobile was from Microsoft. It was closed source and proprietary. The Windows CE operating system and Windows Mobile middleware are widely spread in Asia. The two improved variants of this operating system, Windows Mobile 6 Professional (for touch screen devices) and Windows Mobile 6 Standard, were unveiled in February 2007. It was criticized for having a user interface which is not optimized for touch input by fingers; instead, it is more usable with a stylus. However, unlike iOS, it supports both touch screen and physical keyboard configurations. Windows Mobile's market share sharply declined to just 5% in Q2 of 2010. Microsoft phased out the Windows Mobile OS to focus on Windows Phone.

Blackberry

BlackBerry 10 (based on the QNX OS) is from BlackBerry. As a smart phone OS, it is closed source and proprietary. It is used mostly by Government employees. BlackBerry 10 is the next generation platform for BlackBerry Smartphone and tablets. All phones and tablets are manufactured by Blackberry itself. Once one of the dominant platforms in the world, it's global market share has been reduced to less than 1% in late 2014.

Firefox OS

Firefox OS is from Mozilla. It is open source and uses License. According to Ars Technical, "Mozilla says that B2G is motivated by a desire to demonstrate that the standards-based open Web has the potential to be a competitive alternative to the existing single-vendor application development stacks offered by the dominant mobile operating systems.

Sailfish OS

Sailfish OS is from Jolla. It is partly open source and adopts GPL (core and middleware), however the user interface is closed source. After Nokia failed in 2011 with the MeeGo project most of the MeeGo team have left Nokia, and established Jolla as a company to use MeeGo and MER business opportunities. In 2012 Linux Sailfish OS based on MeeGo and using MER core distribution has been launched for public use. The first device, Jolla (mobile phone) was unveiled on 20 May 2013.

Tizen

Tizen is hosted by the Linux Foundation and support from the Tizen Association, guided by a Technical Steering Group composed of Intel and Samsung. Tizen is an operating system for devices including smartphones, tablets, in-vehicle infotainment (IVI) devices, and smart TVs. It is an open source system that aims to offer a consistent user experience across devices. Tizen's main components are the Linux kernel and the WebKit runtime. According to Intel, Tizen "combines the best of LiMo and MeeGo." HTML5apps are emphasized, with MeeGo encouraging its members to transition to Tizen, stating that the "future belongs to HTML5-based applications, outside of a relatively small percentage of apps, and we are firmly convinced that our investment needs to shift toward HTML5." Tizen will be targeted at a variety of platforms such as handsets, touch pc, smart TVs and in-vehicle entertainment. On May 17, 2013, Tizen released version 2.1, code-named Nectarine.

Ubuntu Touch OS

Ubuntu Touch OS is from Canonical Ltd.. It is open source and uses the GPL license.

III. RELATED WORK

We are collecting the information and uses ratio details of the Smartphone with their operating system user according to comparison of table secondary data on the various telecom companies in the Raipur city. The compare table is define the difference of uses operating system in Smartphone here

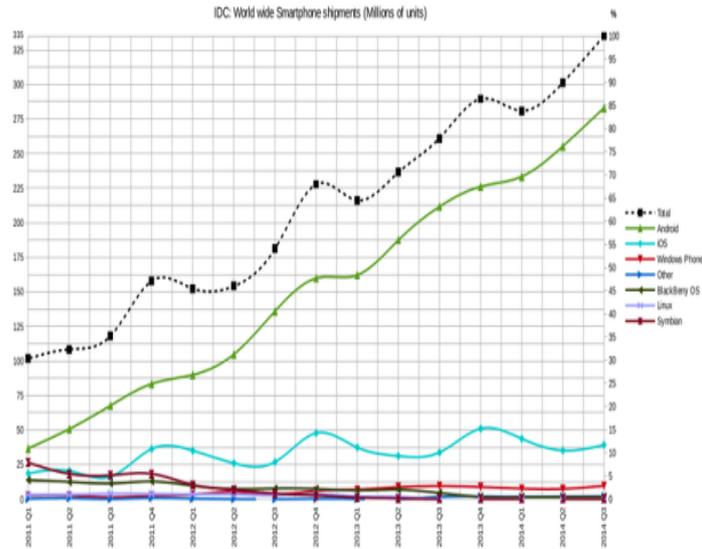


Fig1: Smartphone using graph

IV. EXPERIMENT & RESULT

According to given Graph ration Android and Windows Phone customers gave their phones a rating of 8.9 on a 0 (extremely dissatisfied) to 10 (extremely satisfied) scales, an improvement of 0.3 and 0.6 points respectively. Android received an 8.9 (one of the highest ratings to date for an operating system) followed by iOS (7.3) The biggest reasons given by readers when asked why they chose their mobile phones are as follow: operating system (72%) and 4G capability (51%) for android, quality of email experience (83%) for Blackberry, availability of apps (63%) for iOS and operating system (48%) for Android Phone (81%).

V. CONCLUSION

The Mobile operating system is human-computer interaction by which a computer is expected to be transported during normal usage Mobile computing involves mobile communication, mobile hardware, and mobile software. Communication issues include ad hoc and infrastructure networks as well as communication properties, protocols, data formats and concrete technologies the information and description are shown the android and window user are huge comparison then other operating system in the world. Customer used those system they user friendly and easy to use in mobile operating system.

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