

Mobile Operating System Characteristics

Gamboa López Jafet Jeshua

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Universidad Tecnológica de Tijuana

Tijuana, México

0322103712@ut-tijuana.edu.mx

Abstract—This document is an explication of what is the mobile operating system and what are the mobile operating system characteristics.

Index Terms—operative, system, mobile, characteristics, android, ios, iphone, blackberry, symbian, windows

I. INTRODUCTION

In the technological landscape, mobile operating systems take center stage in the daily lives of users with mobile devices. Serving as the foundational engine that drives the functionality of smartphones and tablets, these systems also exert a significant influence on the interaction and performance of such devices.

II. MOBILE OPERATING SYSTEM

A. What is it?

A mobile operating system is an operating system that only runs on mobile devices, such as Windows or Linux PCs. The mobile operating system are more geared toward wireless connectivity.

III. FIVE OPERATING SYSTEM

This are some of the mobile operating system that exists:

A. Symbian OS

It was created through an alliance between Nokia (as the most important), Sony Ericsson, Samsung, Siemens, Benq, Fujitsu, Lenovo, LG, Motorola. This alliance This alliance allowed it at one time to be one of the most used mobile operating system, but is currently rapidly losing users.

B. Windows Phone

It is an operating system. Compact mobile phone developed by Microsoft, it is based on the core of the Windows CE operating system and has a set of basic applications, currently in version 7. It is designed to be aesthetically similar to the desktop versions of Windows.

C. Blackberry OS

Developed by the Canadian company RIM (Research In Motion) for its devices. The system allows for multitasking and has support for different methods exclusive to RIM.

D. iPhone IOS

Created by Apple originally for the iPhone, later used in the iPod Touch and iPad. It is a derivative of Mac OS. Almost perfect between hardware and software and the handling of the multi-touch screen.

E. Android

It is based on Linux originally designed for mobile devices such as smartphones but later modified to be used on tablets, it is currently in development for use on netbooks and PCs. Google is the developer and it was announced in 2007 and launched in 2008.

IV. CHARACTERISTICS

- Ability to connect to the internet wirelessly. Smartphones are designed for wireless connection hence they have an inbuilt modem. The smartphone OS supports the wireless connection by default.
- Support radio frequency for telephony communication. Mobile phones were originally designed for telephone voice calls. When other features were added to be basic phone the OS had to consider how the phone can connect using different frequencies. Most frequencies that are used are from 2G, 3G, 4G, or the latest 5G technologies.
- Offer online application stores. Each operating system has its online platform where developers can upload mobile applications and users can download them for use. Android users have Google App Store while those on Apple have Apple Stores.
- Global positioning system (GPS). Since smartphones are mobile their OS supports GPS which can be used for location-related applications. This can help users navigate easily on their environment using apps like Google Maps. Graphic User Interface (GUI) platform. Smartphones are designed to be used by the general public hence they support the best user-friendly interface GUI. Smartphone OS supports user interactions such as tapping, swiping, and pinching, among others. Also, users can customize their interface to make it more personalized.
- Low power consumption. Since smartphones are mobile devices they are designed to have batteries that can last long. The mobile operating system is designed to support low power consumption to preserve the life of the device's battery.

- Pre-installed applications. Most smartphone manufacturers preinstall the default operating system on their devices alongside other recommended software. Some of these application users may never use them and they are called bloatware since they just fill the storage space of the device. Advanced users can remove bloatware in Android OS.
- Manage data and network. Smartphones are designed to manage different telephone network providers depending on the region and country. The OSes are designed to be compatible with all available networks and also manage internet data.

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