

Mobile Operating System

Submitted To

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Mobile Operating system

- A mobile operating system (OS) is software that allows smartphones, tablet PCs (personal computers) and other devices to run applications and programs.
- A mobile OS typically starts up when a device powers on.
- Mobile operating systems also manage cellular and wireless network connectivity, as well as phone access.

Types of mobile operating systems

- Android
- Windows
- Symbian
- BlackBerry
- IOS

Android



- Android is an open source and Linux-based Operating System for mobile devices.
- Used in devices such as smartphones and tablet computers.
- Android was developed by the Open Handset Alliance, led by Google, and other companies.
- The first beta version of the Android Software Development Kit (SDK) was released by Google in 2007.
- Android 1.0, was released in September 2008.
- On June 27, 2012, at the Google I/O conference, Google announced the next Android version, 4.1 Jelly Bean.

Features of Android

- **Beautiful UI** : Android OS basic screen provides a beautiful and intuitive user interface.
- **Connectivity**: GSM/EDGE, IDEN, CDMA, EV-DO, UMTS, Bluetooth, Wi-Fi, LTE, NFC and WiMAX.
- **Storage**: SQLite, a lightweight relational database, is used for data storage purposes.
- **Media support** : H.263, H.264, MPEG-4 SP, AMR, AMR-WB etc.
- **Messaging**:SMS and MMS
- **Web browser** : Based on the open-source WebKit layout engine, coupled with Chrome's V8 JavaScript engine supporting HTML5 and CSS3.

Features of Android

- **Multi-touch** : Android has native support for multi-touch which was initially made available in handsets such as the HTC Hero.
- **Multi-tasking** : User can jump from one task to another and same time various application can run simultaneously.
- **Wi-Fi Direct** : A technology that lets apps discover and pair directly, over a high-bandwidth peer-to-peer connection.
- **Android Beam** : A popular NFC-based technology that lets users instantly share, just by touching two NFC-enabled phones together.

Advantage

- Android Is More Customizable Can change almost anything.
- In Android, any new publication can be done easily and without any review process
- Cost Effective
- Built in Beta Testing and staged rollout
- Easy access to the Android App Market
- Android Offers an Open Platform

Disadvantage

- Need more code on Java than Objective-C.
- Complex layouts and animations are harder to code in Android.
- Applications contains virus also present in Android Market
- Background process that lead to the battery quickly drains.
- High device fragmentation
- Low security

Windows
Mobile OS



- Windows Mobile was a Microsoft operating system that targeted smartphones and Pocket PCs.
- It was first released in the Pocket PC 2000 operating system and was based on the Windows CE kernel.
- Windows Mobile included basic applications developed with the Microsoft Windows API.
- Applications for the software were available for purchase from Windows Marketplace for Mobile.
- In 2010, Microsoft announced the development of Windows Phone to supersede Windows Mobile.

Advantage

- Microsoft operating system is the most secure compared to Android or IOS due to the source code & a reliable system of protection.
- Windows Phone is a fast & user-friendly operating system
- Windows Phone enables you to check out your notifications from your lock screen.

Disadvantage

- Lack of demand.
- No more push notifications:
- The software giant stopped supporting mobile push notifications for smartphones running on OS 7.5 and OS 8.0

Symbian OS

- Symbian OS was the most widely-used smartphone operating system in the world until 2010.
- it was overtaken by Android. Development of Symbian OS was discontinued in May 2014.
- Symbian OS began as an operating system called EPOC, which was developed in the 1980s by a company named Psion.
- In 1998, in a joint venture with telephone manufacturers Nokia, Ericsson, and Motorola, Psion became Symbian, Ltd., and EPOC became Symbian OS.
- In 2008, Nokia acquired Symbian.
- As of now, developers are no longer able to publish new Symbian applications.

Features of Symbian OS

- **Real-time:** It has a real-time, multithreaded kernel.
- **Platform Security:** Symbian provides a security mechanism against malware.
- **Internationalization support:** It supports Unicode standard.
- Fully object-oriented and component-based.
- Optimized memory management.
- Flexible user interface design.
- Multi-tasking.

Advantage

- Symbian OS provides open platform to enable independent technology and software vendors to develop third party app.
- Symbian allowed impressive battery life.
- Symbian required lower hardware requirements.

Disadvantage

- Symbian OS is dependent on Nokia.
- Major drawback of Symbian OS is it provided a late response as compared to iOS and Android.
- The touch of Symbian use devices are not as smooth as compared to iOS and Android devices.

Blackberry

- BlackBerry OS is a proprietary mobile operating system developed by Research In Motion (RIM) for its BlackBerry line of smartphones.
- The BlackBerry platform is perhaps best known for its native support for the corporate communication environment.
- It allowed complete wireless activation and synchronization of email, calendar, tasks, notes, and contacts.
- Currently deployed versions include the BlackBerry Device Software v5.0, the BlackBerry 6 OS, and the BlackBerry 7 OS.
- BlackBerry 10 OS is a QNX-based operating system, similar to the one found on RIM's Playbook tablet.



Features of Blackberry OS

- **BlackBerry Flow:** First is BlackBerry Flow which offers a true multitasking experience for its users. Flow basically lets users switch from one app to another in a breeze, hence the term “flow.”
- **BlackBerry Hub :** It is basically a feature of BlackBerry 10 that allows users to manage all activities in one single place.
- **BlackBerry Peek :** It lets users “peek” on an application and immediately get back to what they are doing. You can “peek” on your inbox to check messages and instantly resume watching videos afterwards without having to close the player.



Features of Blackberry OS

- **BlackBerry Keyboard** : The keyboard essentially offers one thumb typing.
- **BlackBerry Remember** : lets users save stuff to remember such as notes and voice reminders.
- **Camera Application with Timeshift** : lets you capture several pictures, and very easily choose which faces is better.
- **Story Maker** : this is an app that pulls your photo content to create a nice collage. You can also add some music, and personalize things.

Advantage

- Excellent Connectivity (Messengers viz BBM, yahoo, gtalk, whatsapp work seamlessly).
- Amazing email client (can also sync with your enterprise server).
- Most user friendly qwerty keyboard (easy typing).
- Very fast and snappy.

Disadvantage

- Battery life not great in some models.
- Camera quality not great.
- Application support is bad.
- Almost all models have similar utility and features. (Minor change in visuals cz of the new OS).

Thank You