INTERNATIONAL MULTIDISCIPLINARY JOURNAL FOR RESEARCH & DEVELOPMENT
SJIF 2019: 5.222 2020: 5.552 2021: 5.637 2022:5.479 2023:6.563 2024: 7,805
eISSN :2394-6334 https://www.ijmrd.in/index.php/imjrd Volume 12, issue 06 (2025)

SETTING UP A MOBILE OPERATING SYSTEM

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Annotation: this thesis briefly describes the mobile opercion tisms and their types, as well as about them**.**
Keywords: Mobile operating systems, Bluetooth, Wi-Fi, GPS navigation, camera, camcorder, speech recognition, voice recorder, music player, NFC.

Mobile operating systems combine the functionality of a personal computer operating system with mobile and handheld devices:n touch screen, cellular, Bluetooth, Wi-Fi, GPS navigation, camera, camcorder, speech recognition, voice recorder, music player, NFC and infrared remote control bmoslamas. Portable mobile communications (e.g. smartphones) include two operating systems. The main software platform for user interaction is complemented by a secondary, real-time real-time operating system that serves radio technology. Studies have shown that such low-end operating systems are vulnerable to malicious base stations that can take over the management of a mobile device.

Mobile operating systems are software installed on smartphones and tablets that control and control the operation of the device, and also allow the user to interact with the device and install applications. Some popular mobile operating systems include:

1. Android is an open source operating system developed by Google that is used on most smartphones in the world.
2. iOS is an operating system developed by Apple, used on the iPhone and iPad.
3. Windows Mobile is an operating system developed by Microsoft that is used on some smartphones.
4. BlackBerry OS is an operating system developed by BlackBerry that was previously popular but is now very rarely used.
5. Tizen is a Linux operating system developed by Samsung that is used on some smartphones and smartwatches.
6. Firefox OS is an operating system developed by Mozilla but later discontinued development.

Each of these operating systems has its own characteristics and functionality, as well as its own applications and capabilities, depending on the wishes and needs of the user.

Comparative analysis of mobile operating systems. To analyze software platforms, we use several criteria.

1. The company that developed this mobile operating system.
2. Age-how many years on the market.
3. Source code. Can be closed or open. Closed source-as a rule, this means that only compiled versions of the platform are distributed, and the license does not imply access to the source code of the operating system; open means that the source code is available for viewing, studying and changing, which allows a third-party developer to participate in the improvement of the system itself.
4. Core type. The monolithic kernel provides a rich set of hardware abstractions. All parts of the monolithic core work in the same address space. It is a schema of an operating system, and all components of its kernel are components of a single program, using Shared Data Structures and interacting with each other by calling procedures directly. The microadro provides only basic

process control functions and a minimum set of abstractions for working with hardware. Most of the work is done through special user processes called services. The decisive criterion of "microadro" is the placement of all or almost all drivers and modules in service processes, sometimes the impossibility of loading any extension modules into the microadro itself, as well as the development of such extensions. Hybrid cores are modified microadroes that allow "non-core" parts to be deployed in the core area to speed up work.

5. Supported processor architectures. x86 processors support the same instruction set and have a microarchitecture derived from IA-32, meaning that Intel Architecture is a 32-bit microprocessor. The chips are built on the CISC (Complex Instruction Set Computing) architecture, in which each instruction can perform multiple low-level operations at the same time. ARM processors are 32-bit microcircuits based on the RISC (Reduced Instruction Set Computer) architecture, that is, have a reduced set of commands. This architecture is based on the idea of simplifying instructions and limiting their length, increasing performance.

6. Friendliness is an assessment of how much an untrained user can understand the system.

7. System performance-how complex and technically difficult the system can perform operations.

8. Calculation costs-how quickly the system operates a certain operation.

9. Reliability-the property of maintaining the ability of the system to perform the necessary functions over time.

10. Failure resistance is a feature of my technical system to maintain the ability to function properly after the system or certain parts of it are out of work.

11. Continuity-the developer shows how much the company supports updating the software platform in applications with an outdated system. Take, for example, the Motorola Milestone communicator. During the release v, Android 2.1 was installed on it, and a year later Android 2.2 was released. Under it. This is not the best indicator.

12. Multitasking is a feature of the operating system to provide the ability to process multiple processes in parallel (or pseudoparallel).

13. The official App Store was created by the developer company. This is an electronic store that can be accessed directly from your mobile device. In this store, the developer company, as well as third-party developers, place their applications for free/paid download by users.

14. Sales in stores.

15. Multitouch is a function of sensory input systems that simultaneously determine the coordinates of two or more touch points.

16. Copy / Paste – the ability to copy and paste text.

17. Screen technology. A resistive screen is a glass liquid crystal display in which a flexible membrane is applied. A resistor composition is applied to the corresponding sides, and the space between the planes is divided by a dielectric. Electrodes (four or eight, five or six and seven) are attached to the edges of the plates. When pressed, it is easy to predict that the screen and membrane will communicate at the pressing point, the coordinates of which are calculated by applying sequential current to the upper and lower plates and measuring the voltage. plates. Therefore, you can click on such a screen with any solid thing - from nails and stylus to pencils or matches, and it will work. A capacitive touch screen is usually a glass panel on which a layer of material with a transparent resistor is applied. Electrodes are installed at the corners of the panel, which deliver a low-voltage variable voltage to the conductive layer. Since the human body is able to conduct electric current and has a slight capacity, leakage occurs in the system when touching the screen. The location of this leak, i.e. the point of contact, is determined by a simple controller based on data from electrodes at the corners of the panel.

18. Update the microwave. Over the air-the update is carried out by WiFi connection or directly on a mobile device via 3G. By cable-for this you need to connect a mobile device to a personal computer and install an update using special programs.
19. The role in the world-the pace of development and the current market share are taken into account. Mobile operating systems: comparative analysis currently, there are several popular mobile operating systems used in mobile phones and tablets. In this article, we will conduct a comparative analysis of three main mobile operating systems: iOS, Android and Windows Phone.

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