Lecture 20. Operating systems for smartphones

Plan:

1. Operating systems for smartphones: comparison.

2. Types of smartphones.

Modern mobile phones are more than just calling devices. In terms of their functions, they are similar to personal computers, it is not for nothing that such devices have the prefix "smart" (from English - "smart"). The ability to use more programs provides smartphones operating system (OS). To choose the most suitable device for yourself, you need to consider what platform it runs on. Today we will highlight the three most popular systems.

Android system

Android is Google's operating system. It is distributed free of charge, and the requirements for the technical parameters of a mobile device are minimal. These features have made this platform one of the most popular among major smartphone manufacturers. This OS is very easy to configure. In addition, it is constantly evolving. There are a lot of Android applications, they are constantly being created. Downloading and installing them does not cause any difficulties. However, most of them are paid. YanaThere is one nuance: applications developed for one android version may not work correctly on another. In this regard, some inconveniences may arise in the conditions of constant updating of versions.

Most Android phones have a microSD card reader, which allows you to quickly transfer files from your computer to your phone. Plus, you don't need any syncing apps to transfer data from your mobile device to it (unlike iOS and Windows Phone).

The system works in multitasking mode - this is both a plus and a minus at the same time. It is possible to switch from one active window to another, but if you forget to close something, the battery will be used up very quickly.

A big advantage of this system is the ability to use flash drives to expand the memory of your device.

Android cannot boast of stable operation, and since the system is open and therefore more vulnerable, there is a high probability of "infection" with viruses.

Apple iOS

This OS is completely closed, so you have to pay for the products. This platform is characterized by excellent quality and stability of work - this is an undoubted advantage. In addition, it is very easy to learn. Yanaanother plus is security. All applications are carefully checked in the Apple Store.

Among the disadvantages of the system is its availability only on Apple devices. Accordingly, in this case, the choice of a smartphone is significantly narrowed (compared to Android). There is no possibility to change anything in the system, transfer files from a computer, etc., that is, the user's freedom of operation with the device is very limited. When buying a phone, you should immediately choose the required amount of memory, since you cannot expand it.

This OS was developed by Microsoft. It is not as popular as the above, but many users believe that WP will be able to compete with the leaders in the future. The interface here is very convenient and unusual: instead of widgets - "live tiles". They display information on the screen without opening the application itself (for example, calendar, weather, etc.). Often, the advantages include the responsiveness of the system, the speed and smoothness of the interface.

A very useful feature that allows WP to be called a platform for business people is the ability to edit text documents, since MS Office is supported. A clear disadvantage is that there are several times fewer applications on WP than on iOS and Android, and not all of them work fully. YanaOne drawback is the uniform volume level in the system: if you listen to music at full volume, then an incoming call will be at the same level.

We've listed a few aspects of the most common smartphone operating systems. But this information should be enough to help you understand which OS you're most likely to support.

When choosing a new smartphone, the user inevitably has to take into account many technical parameters: camera resolution, battery capacity, processor power,

display type and size, etc. However, first of all, it is necessary to decide which operating system the smartphone will run on.

The decision in favor of a particular operating system depends on how the new device meets the requirements of users in terms of performing various tasks, whether it will be able to install specific applications or be content with analogues, how the new gadget will interact with other mobile and stationary electronic devices.

And, of course, the operating system largely determines the price of the device.

Let's look at the three main operating systems for smartphones that have become the most popular and in-demand in the world by 2017:

Android;

Windows Phone.

Trading volume

According to analysts from the NetMarketShare portal, the main players in the mobile operating system market in 2017 are software products from Apple and Google. Every month Windows Phone loses a tenth of its sales. According to some forecasts, by 2020 Microsoft's OS may completely leave the market due to the fact that not only users but also developers of mobile applications are losing interest in it. As can be seen from the graph, despite the fact that the Android operating system has shown steady growth over the past six months, Android remains the leader in sales. At the same time, in the near future the balance of growth between Google and Apple may shift in favor of Android, since many interesting new products may appear on the basis of this OS, which were announced at the recent MWC 2017 in Barcelona. Let's compare each OS separately and try to figure out which operating system is better for a smartphone. iOS Apple products are a closed ecosystem. That is, one company is both a manufacturer of smartphones and tablets and a software provider. Therefore, Yabloko players can guarantee the highest quality and reliability of their devices, which, in turn, affects the price. So, the cost of the latest model Apple IPhone 7 ranges from 1.5 thousand to 2 thousand

dollars. Advantages: Simple and well-thought-out shell interface Excellent design Closed environment for developing high-quality professional applications No viruses Regular updates Disadvantages: High cost of gadgets Inability to customize the operating system for yourself Small selection of applications comparable to Google Play Very limited choice of devices for the user Synchronization with a personal computer and the need to manage multimedia files through a separate program It is said that the user, choosing a device for iOS, does not simply buy a device to enter a fashionable brand... However, here the high price is fully justified by excellent quality. The popularity of the operating system from Google Android is explained by the fact that a huge number of devices are released on its basis, and not only smartphones and tablets, but also watches, bicycles and even cars. Android is unique and diverse at the same time - each user can greatly customize the original shell on his device. Advantages: Open source. Anyone who understands programming can write a program for Android and put it on Google Play In this regard, there are more than 1.5 million applications for all occasions for paid and free download. One personal account gives access to all Google services, most of which are very well integrated with each other Convenient synchronization with other devices via wireless modules or a USB cable without additional software Convenient and intuitive control High performance and versatility Wide selection of manufacturers Wide range of prices. A device for Android, depending on the configuration, can cost from 2 thousand to 32 thousand rubles. Disadvantages: High susceptibility to hacking attacks and viruses Among them, there are frankly low-quality software, free applications A lot of settings that are sometimes difficult to understand for an unprepared user An Android smartphone or tablet is perfect for those who are just starting to learn mobile technologies, and confident users. Given the combination of pros and cons, we can say that Android is the best operating system for a smartphone. Perhaps the main thing here is to monitor what and how you install and download, and not try complex settings without the appropriate skills. Windows Phone Microsoft, unlike its competitors, who sometimes spy on each other's technological solutions, is

trying to go its own way. As a result, the operating system Windows Phone has a unique design and unique features of work. Nevertheless, devices for Windows Phone OS, to put it mildly, do not disappear from the shelves. Advantages: One OS for mobile devices and PCs Low system requirements Windows Phone is annually recognized as the most secure OS in the world A beautiful tiled interface Disadvantages of quality software A small number of applications in the Marketplace branded store (about 300 thousand) Incompatibility with popular applications. For example, there is no version of Instagram for Windows Phone. We have to use very inconvenient analogues Limited choice of gadget manufacturers Lack of customization Large portability system Windows contacts Phone to another OS System errors Inconvenient built-in Edge browser, which is why it became the direct successor to Internet Explorer As a rule, smartphones for Windows Phone are recommended for business people who can process various documents in a single Microsoft Office software environment. At the same time, it is very difficult to find a gadget for Windows Phone, for example, for a student. As mentioned above, one of the main advantages of the Android OS is the pricing policy of smartphone manufacturers using this "operating system". At an acceptable price of up to $ 150, the user can find a gadget on the current version of the OS with a reliable and powerful filling. One of the most visible smartphone manufacturers that perfectly combines modern technologies, quality, reliability and affordability. If you prefer the ease of use and simplicity of the Android OS over other systems, as well as a powerful and inexpensive smartphone, we recommend paying attention to the products of the British company Fly. Why Fly Since 2003, Fly has been producing mobile devices designed for the most mass consumers. The best personal smartphone can meet any requests and tasks of any user, regardless of their profession, age, social status and income. A businessman, student, schoolboy, athlete, builder, rescuer, traveler - everyone can find the best Fly for themselves. Among the latest models, in which the full range of Android capabilities can be highlighted, Fly Cirrus 9 and Fly Cirrus 12, combined with high-quality and reliable technical components, a great body design and a pleasant

price. Fly Cirrus 9 Gadget is an LS-phablet with a large 5.5-inch screen on an IPS matrix and HD resolution. On such a screen, it is very convenient to work with various Android applications, watch movies, read books and work with documents. A quad-core 1.25 GHz, 4-core processor is responsible for performance and multitasking. Fly Cirrus 9 is a great answer to those who complain that Android drains your battery in a matter of hours. Thanks to the excellent optimization of the system, hardware and a 2800 mAh battery, the smartphone works for up to 10 hours and up to 280 hours of standby time. Add to this high-quality cameras of 8 and 2 megapixels, add a beautiful glossy design of the back panel, and we get an excellent smartphone with a nice price tag - only $ 100. Fly Cirrus 12 The Fly Cirrus 12 LTE smartphone will be the choice for those who like to take great photos with a smartphone. The 13 and 5 megapixel cameras on the CMOS matrix inherited the model from the Fly Cirrus 7, which at one time was called a "camera phone". The 5-inch IPS display with 2.5D technology provides a great touch experience, which allows you to create screens with beautiful rounding of the edges. The Android 6.0 operating system and a powerful 1.3 GHz quad-core processor are responsible for the stability, convenience and performance of the smartphone. 8 hours of talk time and 150 hours of standby time are provided by a 2600 mAh battery. As a result, we analyzed which operating systems on smartphones are the most popular in the world. When choosing a smartphone for a specific OS, consider the combination of advantages and disadvantages of each system and base it on your own requests. We also recommend that you review the basic descriptions of smartphones that will help you choose the most suitable model for yourself. If you find an error, please select a piece of text and press Ctrl + Enter. We continue the series of articles about the right choice of a good smartphone... You can read about how to choose the material of the case and the screen of a smartphone. We turn to the topic of choosing the best operating system. In terms of functionality, existing gadgets are as close as possible to the capabilities of a full-fledged computer... They will be able to compete with them in the near future. What is the difference between a large gadget and a pocket gadget?

Software, no more; no more ... will not be; no more. Of course, technical characteristics are important, but it is a high-quality operating system that is capable of setting the correct operating mode. The industry is ready to offer such OSes, and each of them is capable of servicing a mobile device on its own... Let's find out what and what operating system to choose for a smartphone, so that working with this gadget was a pleasure. Mobile operating systems: how it all began The term "mobile operating system" entered the vocabulary of users through the efforts of Nokia... Their device based on Symbian at that time, and it was considered truly advanced and advanced in 2001. After some time, smartphones began to be called all phones that had their own operating system. For example, one of the most popular systems today is Android, with more than a billion devices running on it. Currently, the Windows Phone OS developed by Microsoft is considered no less popular. It is not as in demand as the last, but it has its loyal fans. Fast performance, stability and a simple interface are the three pillars on which the Windows Phone operating system is based. And do not forget that it is assembled on the basis of a well-known system for other computers. Another popular operating system is iOS from Apple. The main emphasis is on its accessibility. "Apple" software is not available to the average user and does not fall victim to viruses, which provides the most comfortable conditions for work and use. In addition, there are many other less common "operating systems" on the market. These include, for example, BlackBerry, which is popular in narrow circles. Of course, it is important to have at least a general idea of \u200b\u200bthe most popular operating systems, to know their features. So, the most expensive and promising is iOS. Today, you can learn about the benefits and capabilities of the same iPhone even from a child. You can understand the operation of the operating system without further ado, everything is intuitively clear. Paying for convenience is an excessive separation of iOS from the rest of the world. This is especially noticeable when using or transferring content, which is possible only on other similar gadgets. The high price is also said for a reason: not everyone can afford Apple gadgets at a high price. Additional programs are purchased not from the

Internet, but from the official store for money. At all costs, iOS is ready to provide the quality of Swiss watches, speed, shock, grace and style. Operating room devices are considered to be much cheaper than the Android system. Unlike the previous version, here the owner can customize everything for himself and to the smallest detail. Most of the applications are free, the library has countless programs for every taste, and the smartphones themselves are presented in a wide price range. Like the operating system on Apple smartphones, Android is also very well suited for working with data streams, in many ways better and more practical. However, with all this, there is a high probability of catching a virus or getting confused in their settings. Sometimes even simple icons, the number of which can be very impressive. Windows Phone is more suitable for lovers of minimalism and a kind of classicism. The operating system for smartphones resembles its older brother both in its simplified form and in its capabilities. Data transfer and further work with them are very visually and easily organized, which prevents the occurrence of unplanned malfunctions. About BlackBerry It was mentioned a little earlier. This operating system could not fully realize the full contrast with other competitors, so not everyone has heard of it. The OS is popular not only on touch phones, but also on push-button phones with a minimalist qwerty keyboard. A distinctive feature of BlackBerry is full support for the services of the company's "developers". Absolute privacy of the Internet and its own encryption method. It is not for nothing that the operating system for smartphones is used mainly in the circles of the well-known Commonwealth. The application library consists of more than 70 thousand copies. The capabilities of the system allow, for example, to convert applications in the whims of Android. Among other things, the BlackBerry interface is very simple and convenient, which allows you to easily work with documents. The flexibility of settings is more similar to the capabilities of Android. The main disadvantage of the operating system can be considered the minimum functionality in terms of media. Listening to music, games, full use of messengers - all this is bypassed. In fact, the system was originally created for the development and growth of business, emphasizing the reliable and stable operation

of the remaining "filling". The problem of smartphone communication Undoubtedly, the item "Communication" is the most important, because an advanced system without the ability to communicate is useless. Fortunately, a smartphone is no different from a regular phone. In this regard, iOS and Android are the same in terms of usability. The first operating system, even the "Do Not Disturb" feature, can control notification sounds. Windows Phone allows you to make calls, but it uses its own system for instant messaging. It is worth noting that the same popular Apple iMessage works with delays (and only on other devices of the company), which cannot be said about Windows. With BlackBerry, everything is much easier, because its capabilities have already been discussed: it does a great job with messages. What offers the Russian market has been nervous about from iOS, Android and Windows phones. This graph shows the percentage distribution of mobile operating systems among smartphones sold. Over the past five years, the situation has changed dramatically. Currently, the sales share of BlackBerry OS (RIM) is relatively high. But the time of this operating system is passing. New smartphones under the BlackBerry brand have been released along with Android. It is clear that phones running on alternative operating systems will hardly sell. But they will! The list of mobile operating systems on Wikipedia includes several dozen names. If you remove from it closed projects such as Symbian and Bada and a huge number of applications for Android, the list will be significantly reduced. Let's select from it systems, devices that you can buy in Russia and tell you more about them. Ubuntu Touch The operating system for smartphones and tablets Ubuntu Touch was announced in early 2013. The project is being developed by Canonical LTD. The system is sometimes called Ubuntu Phone OS. The creators of Ubuntu Touch, while working on the interface, tried to stand out from the rest. The OS has several screens, which can be rotated, as in Android. The first screen displays incoming calls, SMS, mail and social media applications. The second shows the weather, upcoming photos from Flickr and the latest articles from Wikipedia. And only on the third you can access the list installed applications... On the fourth screen, news suddenly appears. The fifth is a music player. The

transition between screens is carried out only in sequence. The system has enough such strange bells and whistles. On the Ubuntu desktop, icons of open applications are located in a vertical bar on the left side of the screen. Ubuntu Touch has a similar element. This is very convenient. The system has 25 pre-installed applications. If that's not enough, you can download others from the Ubuntu Store. OS developers strongly recommend using the Telegram messenger, since its philosophy is largely the same as Ubuntu Touch. Many applications from the store are simply links to the site created as icons on the desktop. For example, the Instagram application simply does not have access to the web page and the camera. To use Ubuntu Touch, you do not need to buy a separate smartphone. It can be installed on some Android devices, for example, on tablets from the Google Nexus line. Yandex.Market found three gadgets without this OS. About a month ago, official sales started in Russia BQ Aquaris E5... Few retailers ask for 15 thousand rubles for it. Its brief technical characteristics: number of SIM cards 2; Weight 134 g; Screen diagonal 5 inches; Camera with 13 million pixels; 1300 MHz processor; Earlier this year, BQ Aquaris E4.5 went on sale for 13 thousand rubles: Number of SIM cards 2; Weight 123 g; Screen diagonal 4.5 inches; Camera 8 million pixels; Wi-Fi 802.11n, Bluetooth 4.0, USB; 1300 MHz processor; Built-in memory 8 GB; Volume random access memory 1 GB. The Spanish company BQ entered the Russian market in the fall of this year. It produces smartphones, 3D printers and toy robots. The products are aimed at creative people who like to modify their gadgets. Most of BQ's technology is open source. The flagship product of a large Chinese manufacturer, the Meizu X5 smartphones, is widely heard. This gadget runs Android in a metal case. There is also an Ubuntu Touch Edition, the price of which is 30 thousand rubles: Number of SIM cards 1; Weight 147 g; Diagonal 5.36 inches; Camera 20.70 million pixels; Wi-Fi 802.11ac, Bluetooth 4.0, USB; Octa-core MediaTek MT6595 processor; Internal memory 16 GB; RAM 2 GB; Gravity sensor; Infrared distance sensor. Firefox OS At the time of this writing, it was announced that Mozilla would be shutting down Firefox OS smartphones. The operating system will be developed for various electronics. Phones are still being

sold in Russia. Their price is much lower than devices with other alternative mobile operating systems. The system began to be developed by Mozilla in 2011 and was announced at the Mobile World Congress in the winter of 2013. The system interface is created in HTML5. Firefox OS applications are built exclusively using web technologies. The logic of smartphone screens is similar to the Android operating system. Many applications are links to websites, which are made in the form of application icons. If there is no Internet connection, the smartphone is practically dead. Briefly about phones under Firefox OS, we can say: "A good browser with a dialer." Numerous reviews of the system indicate that budget devices with Firefox OS are not capable of anything big. Alcatel OneTouch FIRE E 6015X was announced in 2013. You can buy it for 5 thousand rubles. Number of SIM cards 1; Weight 103 g; Diagonal 4.5 inches; Camera 5 million pixels; Wi-Fi 802.11n, Bluetooth 3.0, USB; FM radio; 1200 MHz processor, 2 cores; Built-in memory 4 GB; RAM size - 512 MB; There is a slot for memory cards. ZTE Open c Firefox OS costs about 3 thousand rubles: Number of SIM cards 1; Diagonal 3.5 inches; Camera 3.20 million pixels; Wi-Fi, Bluetooth 2.1, USB; 1000 MHz processor; Internal memory 512 MB; RAM capacity 256 MB; There is a slot for memory cards. ZTE is one of the largest Chinese smartphone manufacturers. Many Russian mobile operators trust it to produce budget equipment under their own brands. The production cost of this company is very low. I think they sell smartphones by weight, not by weight :-) Sailfish OS The operating system is being developed by the Finnish company Jolla. Sailfish OS was first demonstrated at the World Mobile Congress 2013. The core of the project team is former Nokia employees who previously participated in the MeeGo project. You can install regular Android applications from Yandex.Store, which is located on Jolla instead of Google Play. Also, by default, the phone has Nokia Here Maps and Jolla Store. To speed up working with files, you can enable terminal mode in Sailfish OS. If the desired application is not in Yandex.Store, you can download it from the Internet or transfer the apk file from a computer to the phone via USB and start the installation. At the moment, only one device with this OS is

being sold in Russia. You can buy a smartphone Jolla JP-1301 for 18 thousand rubles. It has very modest technical characteristics: number of SIM cards 1; weight 141 g; diagonal 4.5 inches; camera 8 million pixels; front camera 2 million pixels; Wi-Fi 802.11n, Bluetooth 4.0, USB, NFC; 1400 MHz processor; internal memory 16 GB; RAM 1 GB. It is unlikely that someone will have a desire to buy such a toy. But the system code is open, and you can try to install Sailfish OS on several additional Android smartphones in the farm. Tizen Intel and Samsung control the development of the project. The Tizen Association also includes LG U +, Panasonic and dozens of other major electronics manufacturers. Tizen is installed in Samsung Gear 2 watches and Intel ultrabooks. There are rumors that sooner or later Tizen IVI will appear on KAMAZ dump trucks. Currently, this operating system is being actively implemented in LandRover and Jaguar cars. There is also active development of a version for Tizen wearable electronics. Tizen applications are developed using JavaScript, HTML5, CSS. But unlike Firefox OS, web technologies are combined with the Tizen Native API, using them to create native applications that have access to hardware devices. The Tizen Association is doing a lot to support new application developers. The SDK is constantly updated, documentation and tutorials are written, and development competitions are regularly held. Tizen hackathons are held in major cities around the world. There have been several such events in Moscow. Of all the things mentioned in the article, I think that only this operating system has the potential to capture at least 1% of the smartphone market in the next few years. Samsung specialists have huge resources to develop a quality product and promote it. Canonical and Jolla are not strong enough to compete. Sooner or later, they, like Mozilla, will be left out of the game. Which smartphone do you choose to buy? I don't know what platform (operating system) to choose? This article is for you, dear readers of the ZedPost blog! Details below. Below is a rating of mobile operating systems. 1. Operating system from Apple - IOS IOSis one of the most advanced operating systems on the smartphone and tablet market. It is installed on the iPhone, iPod and iPad. It has many functions, is versatile, and is not demanding on resources. But this system is

paid, Apple devices are not cheap at all. This system also has a closed source code, that is, the user cannot independently make changes to the system, and almost all programs are paid, if you are a conscientious user and have not put Jailbreak in order not to lose the warranty. 2. Android operating system Android is an operating system for smartphones and tablets, and recently developed by Google based on the Unix kernel as an open source operating system for cameras, televisions and other devices. This system is also a leader among operating systems for phones and is a big competitor to IOS. For it, as well as on IOS, many programs and games are being developed, both budget phones from 2000 rubles and much more modern and stylish devices are being produced on this platform. The leading company in the production of smartphones on this platform is Samsung, as well as on Android phones released by Lg, HTC and many other companies. 3. OS for smartphones from Microsoft - Windows Phone 7 This system was developed by Microsoft to replace the outdated mobile operating system - Windows Mobile, which was not very suitable for touch devices... This operating system was built from the ground up, so there are not many applications in it. Some people like the interface of this operating system, while others say that "they don't argue about tastes." 4. OS for mobile - Symbian A dying operating system for smartphones that may disappear from the operating system market in the near future. It is unstable, has a complex outdated interface and few features. 5. BlackBerry is a business operating system BlackBerry(BlackBerry) is a high-quality and well-thought-out operating system aimed at solving business problems. There are almost no games for it, but many applications have been developed for this system for business people (converters, currency traders, etc.). In Russia, this system is less common, almost all smartphones running on this OS have a convenient QWERTY keyboard. We have considered the 5 most popular mobile operating systems, there are many others, but their share among the rest is insignificant. Thank you for reading the article to the end. Did you know that the first push-button phone was invented by a manufacturer? Full information is on the website. Title: There is a consultant! Share this Posts on the topic From AHCI to RAID without reinstalling Windows

We remove horizontal lines on the monitor screen that suddenly appeared Editing the recovery partition The laptop battery is connected, but does not charge NEW MATERIALS How to extend the life of a laptop? How to create a Wifi hotspot on a computer or laptop How to update the BIOS on an Msi motherboard? Is it recommended to replace the laptop battery: how to avoid an error? AMD Radeon R7 and R9 - an updated line of graphics cards Wi-Fi hotspot: what you need to know about it? Reviving a BIOS laptop after a failed firmware SSD problems and solutions Keyboard replacement, how to replace a keyboard in a store for a new keyboard warranty Laptop turns off by itself without overheating OMMABOP MATERIALS The laptop started to turn off by itself and what to do Expand EFI encrypted and system reserved partitions using AOMEI Partition Assistant PWR_FAN fits on the motherboard What is the cpu fan on the motherboard How to turn on Wi-Fi on an msi laptop How to turn on HDMI for nd Hdmi on a laptop How to turn on HDMI on a laptop How to determine if there is hdmi on the motherboard How to adjust the laptop battery - the best programs and standard system tools Causes of slow Windows boot and freezes MSI Super Charger: a program to increase the speed of charging gadgets via USB Replacing the processor on a laptop Copyright 2020. shongames.ru. Android. Operating system. Multimedia. Social networks. Tools. Codecs. Fine Arts. All rights reserved. About the projectContacts