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ADVANTAGES AND DISADVANTAGES OF USING CLOUD TECHNOLOGIES.

Abstract. *This article discusses the advantages and disadvantages of cloud technologies, cloud types, models, their application in big data processing rocesses in organizations. The advantages and disadvantages of the effective organization of the cloud infrastructure components of the main cloud technology software tools are analyzed. Based on the analysis, some recommendations have been developed to address the existing problems.*

Key words. *Google drive, Yandex disk, Dropbox, icloud, Cloud computing, Big Data, as an infrastructure service (IaaS), as a service platform (PaaS) and as a software service (SaaS), cloud computing, mass cloud, cloud storage.*

Originally known by the name "cloud" computer systems are programmed by mathematicians. They proposed to define all the computers in the same network as a "cloud" in which the data is displayed. In this case, each computer is not considered an independent unit but as a whole.
In general, we mean the field directly involved in user interaction with the system. So, all the network resources available to us through servers can actually be called cloud. Cloud services for storing files. The most popular "cloud" systems are associated with the development of services that allow you to store files not in computer memory but in specially created Internet storage. Such functionality has provided users with unprecedented freedom of choice, as all files stored in the cloud can be accessed by the owner at any time and from any device connected to the Internet.

Among other things, in this case there is no need to store data on local disks, which saves time (data loading, etc.) and user funds. In addition, cloud services can be used as backup storage for personal data. If your computer's hard drive fails, you can always restore all the data you need that is stored in the cloud. Cloud storage can be used equally effectively to synchronize data between different computing devices.

Data storage in the cloud Solving the problems of data storage requires the creation of a single computing complex, that is, a data processing center based on distributed system methods. Information storage and processing center (English data center) is a specialized architecture consisting of servers (hosting) and network tools, to which users connect using Internet channels. The main goal of the data processing center is to unify the scattered computing power and reduce the cost of ownership while meeting the requirements for the reliability of the information technology infrastructure, ease of access to its resources, security, and management. The information storage and processing center performs information processing, storage, and distribution functions in accordance with the interests of corporate clients. The center is focused on solving business problems by providing information services.

Cloud computing service models Cloud technologies allow you to use highly resource-intensive services in highly flexible environments without any commitment. Cloud computing uses modern enterprise technology, so it provides a high level of security, reliability, and speed.

Software as a service is a model for using business applications as Internet services. Applications run on the SaaS provider's server, and users access them through an Internet browser. The user does not buy SaaS software but rents it, paying for a certain amount of usage per month. So thus, economic efficiency is achieved, which is one of the main advantages of SaaS. The developer takes care of the health of the program, provides technical support to users, and

installs updates independently. Thus, the user thinks less about the technical side of the issue and focuses on his business goals.

Disadvantages and advantages of cloud services. We will consider several advantages and disadvantages of using cloud services. The following can be noted as advantages of cloud computing:

1. The user pays for the service only when needed, and most importantly, he pays only for what he uses.

2. Cloud technologies allow you to save money on the purchase, maintenance, and updating of software and equipment.

3. Scalability, fault tolerance, and security: automatic allocation and release of necessary resources based on application needs. Service display, and software updates are performed by the service provider.

4. Remote access to data in the cloud: you can work from anywhere on the planet with access to the Internet. We will list the disadvantages of cloud computing, and these disadvantages cannot prevent us from using the cloud.

1. The user does not have access to the internal cloud infrastructure.

The security of user data largely depends on the provider company.

2. All data cannot be entrusted to the Internet provider, not only for storage but also for processing.

3. There is a risk that the online service provider will fail one day and the backup data will be lost due to server failure.

4. By trusting your data to an online service, you lose control over them and limit your freedom (the user cannot change some of his data; it is stored in conditions beyond his control).

Today, cloud technologies are being used in every field, from simple users to document storage to large business systems. The use of cloud technologies (cloud computing) by organizations working with big data is a promising direction that allows to increase the efficiency of data processing processes and reduce additional costs for its implementation. Capital costs associated with the creation and maintenance of data processing centers by organizations are significantly reduced; flexible scalability and high availability of services used in the educational process are ensured, which increases the level of satisfaction of the needs of end users. Increases. Big data organizations note the undeniable advantages of using cloud technologies and the main risks that should be taken into account when planning and implementing cloud solutions in their operations.

It is necessary to emphasize the need to ensure data security. special measures to prevent unauthorized access to data in the cloud; reduced availability: the possibility of DOS attacks, risks associated with physical damage to network cables used to connect to the cloud, etc.; Contact with a cloud service provider (cloud provider): If the educational institution does not work exclusively with a private cloud and uses a public or hybrid cloud, switching to another cloud provider can be expensive and time-consuming.

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