

Cloud - Guaranteed And Secure Access To Your Data

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Abstract – This article gives you a brief overview on cloud technology and its services. Simply put, the cloud is a guaranteed and secure access to our personal information at all times. There is no doubt that cloud technology is one of the most popular and exciting topics in the IT industry today, and more and more interesting solutions are emerging. The future of cloud technology is very bright. Because giants like Microsoft, Apple and Google have done and are doing a lot of work in this area. Today, the benefits of cloud technology can be felt even by people who are not related to software, web technology and other things. The article also provides information about the services of Microsoft and Google. In general, the article provides information on the effective use of various hardware, software, methodologies and tools provided to users of cloud technologies as Internet services to achieve their goals, objectives, projects.

Keywords – Storage-as-a-Service, Database-as-a-Service, Process-as-a-Service, Microsoft Project Online, Microsoft Defender for Office 365, Microsoft Power Automate, Google Analytics, Google Classroom, Google Duo

Many modern users of computers and mobile devices cannot imagine without the Internet, which is firmly entrenched in our daily lives. Relatively recently, new cloud technologies have emerged that are very different from the classic models of computer systems.

In fact, the only difference is in the way data is stored and processed. If all the operations are done on your computer (using its power), then it's not "cloud", but if the process is happening on a server on the network, then that's exactly what is called "cloud technology."

In other words, cloud technologies are a variety of hardware, software, methodologies and tools that are provided to the user as Internet services to achieve their goals, tasks, projects.

Everything related to cloud computing is commonly referred to as aaS. This means "as a service" or "in the form of a service".

Currently, the concept of cloud technologies offers its users the following types of services:

Storage-as-a-Service

This is probably the simplest method of cloud computing services, offering the required disk space. Occasionally there will be a warning on the monitor that says, "The logical drive is full. Delete unnecessary programs or data to free up space". As a service, the storage service allows you to store data in external storage, "in the cloud". To you, this looks like an extra logical drive or folder. Examples include Google Drive and other similar services.

Database-as-a-Service

This service allows administrators to work with the database as if the DMS was installed on a local source. It also allows you to "share" projects between different executors, which can save a lot of money on computer equipment and licenses.

Information-as-a-Service

This allows you to use any data remotely, which can change every minute or even every second.

Process-as-a-Service

It is a remote resource that can combine multiple resources (such as services or data from the same cloud or other existing cloud content) to create a single business process.

Application-as-a-Service

It can also be called software as a service. It is hosted as “on-demand software” and is hosted on remote servers so that any user can access it via the Internet. All issues of updates and licenses for this software are regulated by this service provider. Examples include Google Docs, Google Calendar, and more.

Platform-as-a-Service

The user is provided with a computer platform with a built-in operating system and some software.

Integration-as-a-Service

This is an opportunity to get a complete integration package from the “cloud”, including control of programming interfaces between applications and their algorithms. This includes the services and features of the well-known Enterprise Application Centerization, Optimization and Integration (EAI) packages, but is provided as a “cloud” service.

Security-as-a-Service

This type of service allows users to quickly distribute products that allow them to securely use web technologies, email, and local area networks. This allows users of this service to save on the deployment and maintenance of their security systems.

Management / Governace-as-a-Service

Allows you to manage and adjust the settings of one or more "cloud" services. These mainly include parameters such as topology, resource utilization, virtualization.

Infrastructure-as-a-Service

The user is provided with a computer infrastructure. It usually configures networked virtual platforms (computers) independently for its own purposes.

Testing-as-a-Service

Provides the ability to test local or “cloud” systems using software from the cloud (no additional or software required in the enterprise).

Cloud services compete with each other, even offering more convenient and profitable terms for free accounts. With the development of these services, our perception of working with computers may change radically. Let's take a closer look at Microsoft's Office 365 and Google's Apps, which offer a wide range of options to the user today.

Both Office 365 and Google Apps promise to manage the internal tasks of many companies. This, along with providing a cloud service, frees the company from having to hire technical experts and makes a lot of things easier.

Microsoft Office 365 and Google Apps are very diverse products. Office 365 is Microsoft's cloud services system that integrates embedded versions of Lync Server, SharePoint Server, and Exchange Server. Microsoft's office software is great for office use, but Google is trying to challenge Microsoft with Google Docs.

Microsoft Office 365

A set of services for working with office documents, communication and cooperation. Microsoft Office 365 allows organizations of any size to implement software and reduce maintenance costs and optimize IT workload. Office 365 services are easy to use and manage, are reliably protected from viruses and spam, and are characterized by a high level of security and reliability.

List of services included in Office 365

Microsoft Project Online is a suite of services that are part of the Microsoft Office 365 family and address project management and project portfolio management issues. The main advantage is that the pre-installed and configured project management environment for project management is fully leased on the Microsoft Project platform for the time required to complete the project.

The **Microsoft Visio Online** cloud service, part of the Microsoft Office 365 family, is a popular Microsoft Visio Online cloud application for creating and editing diagrams, plans, charts, site maps, and network diagrams that allow you to create specialized graphic documents.

The **Microsoft Exchange Online Protection (EOP)** cloud service is designed to protect Microsoft Exchange mail systems from spam, viruses, and malicious attachments. Today, this service is used to protect all Microsoft Office 365 users and checks more than 740 million messages every day. The standalone Microsoft EOP subscription uses email exchange for companies that use Microsoft Exchange on their network to scan for spam, viruses, and malware before connecting to the corporate network.

Microsoft Defender for Office 365

The cloud-based data protection service in Office 365 scans Microsoft Exchange Server / Exchange Online mail messages and suspicious links (phishing, payment programs) and malicious code for files uploaded to Teams, SharePoint Online and OneDrive for Business.

Microsoft Azure is a hybrid cloud service (PaaS + IaaS) for software development and deployment of enterprise applications and data. The Azure platform combines the latest development tools and access to SQL Server with the ability to rent virtual machines to deploy their IT resources. Power consumption can be expanded by using it according to the changing requirements of consumers. Although Microsoft Azure is now available to Russian customers, our company is ready to help you master this technology and connect a new service from Microsoft.

Microsoft Intune

A cloud service to perform key tasks for updating operating systems and managing workstations - hardware and software inventory, application management, advanced security features, remote access.

Microsoft Yammer

A social network for corporate customers that is only available to their employees and provides all the features of a social network, as well as additional options for data management and protection. There is a free version of Yammer Basic

Microsoft Enterprise Mobility + Security

The Enterprise Mobility + Security suite of cloud services is based on the well-known Microsoft Intune service and provides additional capabilities for corporate clients to manage information resources and protect corporate data.

Microsoft Planner

The Task and Subproject Management System allows you to create work plans, organize and distribute tasks, share files, discuss current issues, and monitor task performance.

Microsoft Teams

A team business messenger that allows employees to organize joint online meetings, publish emails with news for the team, plan collaborative events, and work in a team on documents and projects created in Microsoft Office.

Microsoft Power BI

A family of online business intelligence services that allows you to link data from almost any data source and create visually automatically updated reports based on that information, reflecting the situation in different sections

Microsoft Power Apps

A set of services and tools for quickly creating mobile business applications.

Microsoft Power Automate

Business process automation service without the involvement of programmers. Thanks to the built-in visual editor, any employee can simplify their usual work, whether they work with mail, portal or cloud storage. For example, you can easily create a register of phone payments received in the mail in Excel format, and the original documents are automatically added to the warehouse (SharePoint folder, OneDrive, Google Docs, etc.). A large number of ready-made components allow even the unprepared user to simplify their work or put things in order in documents. Mobile device support makes the service up-to-date and up-to-date.

Microsoft Defender for endpoint

An effective cloud service to protect workstations from unknown viruses, malicious code, and external threats.

GOOGLE. The concept of “cloud service” itself refers to an Internet service. You can save files on the Internet, not on your computer. You can't even install some apps, but you can work with Internet browsers in Chrome, Firefox, Opera or Internet Explorer. For example, Google Docs can replace the Microsoft Office suite. You just need to log in to your account and create a spreadsheet or document to start working with it. Your documents are not linked to a specific computer - you can work with them from anyone: at work, at home or even at an Internet cafe.

Google provides its users with a huge, ever-growing list of services designed to make working on the Internet easier, more convenient, and more versatile.

Let's talk about Google's services. The service is designed to store and edit code. It is based on the Google Cloud Platform, which integrates all of the company's “cloud” services.

Gmail

Free email from Google. Offers access to mailboxes via web interface and POP3, SMTP and IMAP protocols. From there, you can use all Google services.

Google Analytics

An informed marketing and business decision making service using analytics for websites, applications and corporate products.

Google Chat

Business messenger from Google.

Google Classroom

An education management system built into Google Apps for Education

Google Duo

Video chat software from Google

Google Drive

Cloud storage, which gives multiple users access to files and the ability to edit them together.

Google Doc

An online text editor that allows you to create, format, and edit the text of documents together with colleagues and friends in real time.

Google Calendar

Calendar service and organizer functions.

Google Presentation

Creating presentations, wherever you are, is a tool to edit and work on them alone and with colleagues.

Google Sheets

Online spreadsheet software.

Google Translate

One of the most popular search engine services for translating any text into 90 languages as well as web pages and documents.

Google Forms

A service for clients and colleagues to create questionnaires, conduct surveys and further improve the quality of services and business.

So, without a doubt, the future of cloud technology is very bright. Because giants like Microsoft, Apple and Google have done a lot of work in this area. Not so long ago, the concept of “cloud” seemed like just a beautiful idea and a bold experience. Today, the benefits of cloud technology can be felt even by people who are not related to software, web technology and other things. Xbox Live, Windows Live, OnLive, Google Docs are the best examples of this.

Simply put, the cloud is a guaranteed and secure access to our personal information at all times. There is no doubt that cloud technology is one of the most popular and exciting topics in the IT industry today, and more and more interesting solutions are emerging.

From my experience, I can say that Google’s cloud services are widely used today.

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