Nov 7th, 9:00 AM - 5:00 PM

# The influence of cloud computing and mobile technology in our activities

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**Abstract**. Through this paper we present the development of information technology especially in cloud computing and mobile technology as an integral part of everyday life, as well as the advantages that cloud computing and mobile technology offers to the business community and the private one. Furthermore, it presents the possibilities offered by this technology on the data preservation compared with the traditional ones.

Due to the increased demand for big space, it was necessary to establish a centralized data storage which has brought with it more innovation and advantage, in comparison with other media for data storage in personal memories. This opportunity has influenced individuals, companies and the community in general, because of the access to data at any time and from almost every country. Essential principle includes achieving increased productivity benefits at different scopes including ecological impact, reducing managerial costs, investments in infrastructure and exploitation of common resources.

**Keywords:** Cloud Computing, Mobile Technology, Storage, Data.

## 1. Introduction

"Cloud Computing" is a platform with an impact in the world of information technology, which brings on itself a lot of possibilities in the computing field. This platform is being developed on fast paces and is being increasingly used by both the service operators and their clients. The development of such a nature of "*Cloud Computing*" is enabled by the development of new computing technology which enables the use of computing infrastructure in a completely different form and its operation in a reasonable cost. "Cloud Computing" includes sending of computing recourses, which have the ability of further amplify according to demands of clients without a need on big investments in the IT Infrastructure as preparation on new implementations [1].

There are a lot of variations on defining the *"Cloud Computing",* but some of the most appropriate ones are: National American Institute of Standards and Technology (NIST) *"Cloud Computing",* is a model which enables suitable access and based to the needs in a sharing group of computing configuration recourses. For example, computer networking, servers, storages, applications and other services, can be easily set or retrieved on a minimal managerial or services operators intervention. Whilst, according to Gartner IT glossary we have – "A computing model where the elastic and amplified resources of the IT are offered as services to a lot of clients using internet technology" [2][3].

## 2. The usage of cloud computing and mobile technology

Except the basic usage which cloud computing has offered, which have already shown their results, these usages are being increased over time on both more services and possibilities within cloud. The base usage remaining are the online access to data, access at any time, access anywhere covered by internet, finding of tools online, online storage and avoidance of any insecurity threatening the hardware equipment, access to data by two mobile devices at the same time, the usage of contact results, calendar, call list and apps data at one account, access to services, automatic savings, usage of free memory space on cheap cost, secure closing of devices by cloud, the separation of data and their usage by other users [4].

The utilization of Cloud Computing and Mobile Technology abroad is at a satisfactory level, but how is that in our country, as well as balance between the private and public community is very interesting to follow, because the mobile technology is very present, starting from equipment such as: Desktop PC, I Phone, android, blackberry, is always updated on both sectors, while the application of Cloud Computing on these technological equipment is insufficient or better to describe it as being very low. In our country, the cloud as a platform is little incorporated and it is mainly used privately, and this platform is used, more or less at certain businesses, while in institutions and especially in schools has started to be used due to the reason that a lot of branches are professional and the usage of cloud is mandatory because the tasks and students homework are uploaded online and are presented at the classroom by the online access. In order to present an actual example of the usage of cloud in one of our country's institutions, we have shown in the graph the usage of cloud by students, who had an assignment which they set on cloud, at the school where we work, thus we have the following results:
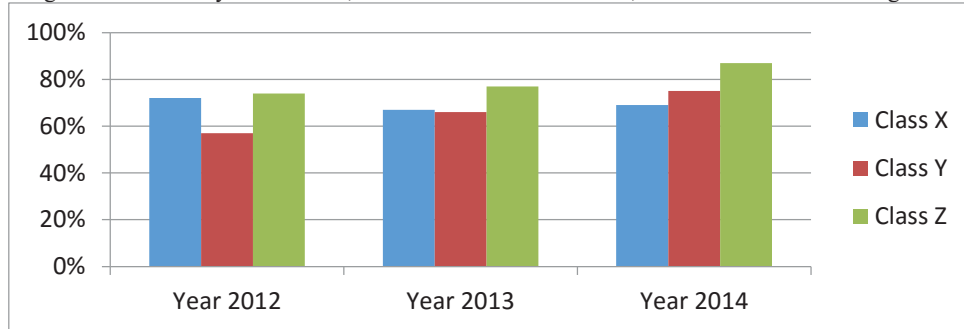


**Figure 1** The comparison of the usage of throughout the years

This is conducted out of 5 given assignments for the number of students on a n academic year and this can be presented in the form a task and can be in graph presented as follows:

Assignment: For Grade X with 22 students during the years 2012 – 2014, are given 5 tasks uploaded in cloud on a school year, thus we have:

$22 \cdot 5 = 110$         (1)

Which shows 100%

$18+11+21+16+14 = 80/110 = 0,72$         (2)

Which as an amount is calculated in Excel to be presented in percentage, while in the math's form we have:

110------100%                                                                                           (3)
80---------X%
80·100 = 110·X
8000/ 110
X = 72%

## 3. Opportunities of using the cloud computing and mobile technology

If cloud is considered as an opportunity, then this opportunity is given to all the people who have access in at least one of the cloud providers, whilst as a technology includes trainings and the advantages that every individual has on information technology in order to access this technology and to gain out of it the benefits offered. Moreover, it can use cloud as a more convenient platform of data setting in a storage offered by this platform as well as the security of the data. As a result, how do we understand and use it, is by connection of a lot of ways into a single one, which in cooperation with mobile technology offers a suitable services to data to proper destinations and to gaining a space storage easily managed.

The user opportunities of this platform are powerful and amplified to secure unlimited resources to storage, in which the information have a great security. Furthermore, it is easier for the user because they can have access at every time and everywhere and they can share with others. Concerning cloud computing clear trend is centralization of computing resources in large data centers. In addition, it has changed the concept of storages, reliability and easy access on data, compared to previous years and traditional storages, which has used the hardware which has been threatened at any time by different factors. Among the best known providers of the usage of the possibilities of cloud space are, such as: Microsoft Windows Azure, Google App Engine, Amazon EC2, IBM Smart Cloud.

## 4. Advantages of Cloud Computing and Mobile Technology

During the years of cloud practicing, it is noticed that there have been both the advantages and disadvantages of this platform, hence, through this letter we have presented the advantages above at the usage of cloud, thus, among the most emphasized ones are:

Pay-Per-Use Model / Only Pay for What You Utilize - Unlike many computing programs where the package comes with unnecessary applications, the cloud allows users to literally get what they pay for. This scalability allows for you to simply purchase the applications and data storage you really need. "Pay-Per-Use" Billing Model Cloud usage policy defines that you will be billed for cloud resources as you use them. This pay-as-you-go model means usage is metered and you pay only for what you consume. Users have to pay only for the resources they use, ultimately helping them keep their costs down. Because this pay-for-what-you-use model resembles the way electricity, fuel and water are consumed, it's sometimes referred to as utility computing.

Mobility - Users can access information wherever they are, rather than being dependent on the infrastructure.Elasticity - The cloud is elastic, meaning resources, software and the infrastructure can be scaled up or decreased, depending upon the need. Service Based Usage Model - Availability of large computing infrastructure and the services on need basis.

Mobility - One of the main advantages of working in the cloud is that it allows users the mobility necessary in this day and age of global marketing. For example, a busy executive on a business trip in Japan may need to know what is going on at the company headquarters in Australia. Rather than having to make phone calls and rely on the reports of employees, they can simply check updated statistics online. The Internet is, for the most part, everywhere. Therefore, cloud computing allows the mobility necessary for success.

Versatile Compatibility - It is an ongoing debate: which is better, the Mac or PC? Despite which side of the fence you stand on this argument, it makes no difference when it comes to implementing cloud solutions into a business model. Users are often surprised to find that the various cloud apps available are accessible on both platforms.

Individuality - One of the most convenient aspects of working in the cloud is that it is compatible with aspects specific to the company. For example, cloud IT services can be scaled to meet changing system demands within a single company [5].

Other advantages are big storages, back up on cloud as a service to retrieve data, automatic synchronization of devices, as well as power savings, which is done by third parties, but which plays an important role, in a certain country, can be an example in environmental protection.

## 5. Disadvantages of Using the Cloud Computing and Mobile Technology

Except the good opportunities offered by Cloud Computing and Mobile Technology they often have their flaws as well as difficulties that are carried by these technologies for their cooperation between them. The most emphasized disadvantages are:

**Privacy:** data remain in the device out of the company's structure, what obliges the latest to trust the service provider in cloud for its confidentiality, as well as the data often remain at the ex-employee, thus, it causes the possibility on misusing the data by the third parties by unauthorised access.

**Security:** The data are always online and can be target of some criminal computing activity.

**Continuation of the Service:** Data remain physically in one place, which usually is away from company's facilities, and if there is not any connection to internet then the data are inaccessible.

**Downtime:** This is the panic situation for business owner, when site goes offline for some time. No doubt that with this issue has to face everybody. Even Amazon, Google and Apple websites face these problems. So think about, what your business has compared to those big companies. There was no other option for complete solution to avoid downtime completely [6].

**Transferring big data:** transferring data or files of large size will not be feasible, as it will take both time and money.

## 6. The usage of Cloud Computing in business and private sectors

Cloud business, or the implementation of cloud in business sector is presented in a growing trend due to some reasons which bring sufficient benefits for the companies, among which we can distinguish:

- Accessible Service 24 hours a day: data and other business application remain in the devices out of the company's structure and administration, which can be accessed wherever you are and whenever you need.
- Lowering the risk: the insurance of the data is guaranteed by the third party, service provider in cloud. Herein, we understand the security against the unauthorized access, within or outside the company, e.g., fire, device malfunction, etc.
- Low Support Cost: herein, it is included the cost which deals with installation, the usage and the updating of the needed applications on the functioning of the IT infrastructure, we include the operative systems, antiviruses, firewalls, etc.
- Low maintenance cost: the company receives the cloud service, thus it does not need to undergo into maintenance cost for the physical devices, though, because this is a service provider company's responsibility.
- Low managing cost: the company does not have to undergo the software license procurement or on the replacement and providing with new physical equipment. Instead, they only have to pay the monthly fee on usage of the network at the whereabouts of the storage of the data. IT Infrastructure is sold by the Re provider as a service on which the businesses pay only for what they get. (Pay On Demand).

Cloud private, the strategy of the implementation of Private 'Cloud', can be compared with the traditional strategy of services, nonetheless, this implementation method uses technology which are used by 'Cloud Computing', such as virtualization to secure advantages for individuals. 'Cloud' private, virtualization technology in order to build the infrastructure of technology of an individual by offering high advantages compared to other infrastructures. In our country, the situation is almost completely opposite in terms of the usage of these two systems, cloud private is used more than the cloud business. Regarding the mobile technology, it noted that it is present at every individual, thus, being the strongest point compared to the business one in the usage of cloud.

**6.1 The comparison of the usage of Cloud on Business and Private Sector in Theranda**

As stated above, strangely the same situation appears in the town of Theranda, where the usage of cloud private is more than the usage of cloud business and according to the questionnaire we have the following ratio: in the business sector the usage is 14% of the cases, while in the private sector it consist of 18% of the usage.
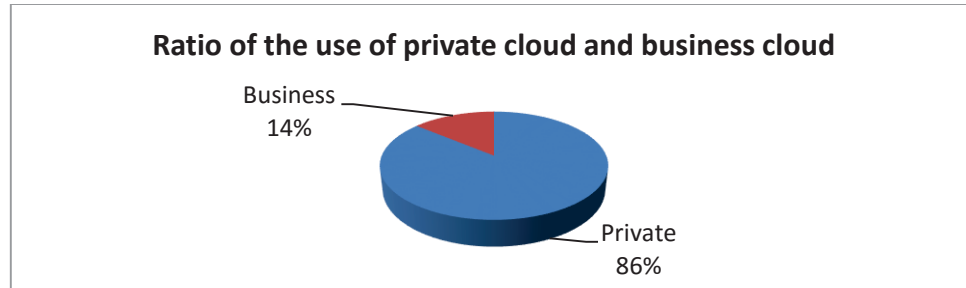


**Figure 2** Ratio of the use of private cloud and business cloud

# 7. The advantages and disadvantages of storage of data in traditional memory devices in ratio to cloud

There are a lot of advantages of storing of data in cloud in comparison to traditional memory devices, such as: physical security, which is no threat compared to traditional ones, which can be lost, broken or stolen; data security is higher; larger storage space; law protection storage space; a part of the storage space is given to the user without charge; accessibility everywhere and at any time; there is no need to carry the memory space with you, you will have it only if there is access to network, etc. Apart from these advantages of cloud, there are also some disadvantages, in comparison to the traditional memory devices, starting from the inaccessibility to data  in case there is no internet connection, the losing of order in uploads if there is interruption on the network, upload and download are variable and depend on network bandwidth.

## Conclusion

Cloud computing and Mobile Technology have influence the current society in a way how the services are offered by them, as well as these services have influenced the society in various ways, by making it accessible both as an individual and as a business. These accesses into two forms has also reviled the differences between them, therefore, we can conclude that cloud as a platform, in our country, is used more individually than in a business sector.

All the advantages of cloud, in comparison to the traditional memory devices, such as: USB-s, Hard-discs and other memory devices have challenged the traditional ones, therefore, it has been found that the aforementioned point, cloud remains in a much better situation, even though there are still a lot of hesitations to its usage due to the fear on its security, though, there is nothing to fear of in this regard. Moreover, if we compare cloud to the traditional memory devices, the latest can be easily lost or stolen, thus, we will have the same result. All in all, cloud remains in a higher and better position, in regard to its storage capacities, management and a lot of other above mentioned advantages.

At the different institution, such as schools, especially those technical ones, there is an increasing tendency of cloud usage, based on our study results at school classes presented on the graph.

Facing with the issue of current fear on cloud usage and professional preparation to recognize cloud by clients will be the main challenge in the future, nevertheless, the usage of cloud is constantly in growing and in scalability of new opportunities within itself.

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