Research Paper on Benefits of Cloud Computing in Business and IT Services

Payal Dighore 1, Ashwini Kaste2, Sanjana Kailkar3, Pooja Tekade4

Department of Computer Science and Engineering, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur, Maharashtra, India.

ABSTRACT

Cloud computing is pictured as the next-generation technology. It is a web-based technology where class services are provided to users including data and software, on remote servers. Cloud computing is just like as called Data externalization as an outsider gives storage services to the client. Cloud computing is generate a good result for the customers without costing a lot of money for equipment and programming for information storage. No need of more infrastructure in cloud computing. Cloud can be considered as an entire or an incomplete outsourcing of hardware and software resources. To access cloud applications, a fast Internet connection and a excellent Internet browser are required. It is a method for delivering information technology (IT) services in which resources are bring from the Internet through web-based tools and applications, as opposed to a direct connection to a server.

Keywords: Cloud Computing, Uses of Cloud, Market and Growth Revenue.

INTRODUCTION

Cloud computing has formed the conceptual and infrastructural basis for tomorrow's computing the global computing is rapidly moving toward the cloud based technology. In cloud base computing infrastructure, the resources are normally in someone else's premises and network accessed by the authorized cloud user. business and IT administrator are no longer looking at the Cloud solely as a tool; now the focus has shifted towards finding the right way to use it so they can accomplish their 2018 business goals. The development of the Cloud has created significant changes to organizations in the past few years. Cloud Computing has provided Big Data with a way to store and bring an immense amount of information. It has

evolved from personal cloud storage to entire companies moving all of their data to the cloud. Although the Cloud has brought so many benefits, larger companies are still hesitant to transfer their information to the cloud, and that is mainly because of security deals. But, even with the security deals, the adoption of Cloud services continues to rise due to the improved usage of cloud-based services including, mobility, increased efficiency, costeffectiveness, streamlined collaboration, and speed of connectivity.

Cloud computing is a method for delivering information technology (IT) services in which resources are bring from the Internet through webbased tools and applications, as opposed to a direct connection to a server. Rather than storing files on a hard drive, cloud-based storage makes it possible to save them to a remote database. As long as an electronic device has retrieve to the web, it has retrieve to the data and the software programs to run it.

It's called cloud computing because the information being accessed is found in "the cloud" and does not require a user to be in a specific place to gain access to it. This type of system allows to work remotely. Companies providing cloud services authorized users to store files and applications on remote servers, and then access all the data via the internet.

The following are the ways cloud computing will revolutionize the IT industry:

1. Upscale Application Complexity

Companies initially shifted some of simple workloads to the cloud to check viability of doing so and to make an organization efficient. However, now that the simpler projects have been established on the cloud and the companies will be shifting the more complex applications to the cloud in the hope of even better workplace efficiency.

Cloud Platform Will Allow Companies To Avoid Unnecessary Tools

Cloud platforms emphasis on short learning curve. Another advantage is the low barrier to entry in terms of cost and seamless integration into organization. The recent example is that of the lean manufacturer "Toyota" which has shifted to all kind of cloud technologies denting other expensive tools. Toyota cloud alternative to exchange mail and Microsoft Office desktop is Microsoft Office 365.

2. Reducing the Task

The feasibility of developing one app that does everything for a company is being put to test. For every delivery, the testing time increases with an increase in utilities, causing delays and even making the software outdated by the time it hits the production environment. Companies are looking at micro-services on the cloud that perfectly handles one or a few such tasks at a time. A business service can be a combination of one or more micro-services. This way, updates can be released quickly because only the specific micro service has to be tested before release.

3. Cloud Platforms to Compete with Blockchain Block-chain has revolutionized the IT industry.

Presently cloud industry is patent market place dominated by three major player AWS, Microsoft Azure and Google Cloud. These companies collude to set the prices. Several companies are leveraging block-chain technology to turn cloud into an open market place, where price is determined by the supply and demand for computing power. For example, on the blockchain network, users can "rent" computing power from idle data centers. Theyonly use the power they need for the quantity of time they need it. In turn, data centers and large-scale companies with hardware they aren't currently using can turn these assets into new revenue streams. By creating decentralized ecosystems, block-chain technology will have a massive impact on the way the business world uses the cloud.

5. Change the Productivity Perspective By Companies

Cloud computing has made a real impact on team work. Whether they are sitting on the same office or two sides of world, data is made reachable to employees 24/7 which made continuous flow. Work without any disruptions. The license of artificial intelligence and machine learning will radicalized cloud computing. Say for example if you are constantly making changes to the documents in the cloud, the cloud may soon be able to learn from the changes and suggest the changes to the other team members autonomously.

6. Towards Sharing Mentality of Companies

In the past many corporation decided to invest thousands of dollars in building their own servers, CRM tools, databases and file-storing programs. But now many of those services are being offered on the cloud which is free and very cheap to start.

Therefore, it's difficult to justify such a substantial cost just to keep everything in one room. In addition, cloud companies see the huge potential for enterprise services. As demand for cloud computing increases so will their efforts to ensure cloud computing technology are superior over the ones built internally.

Here are some data points for us to look into: Public cloud platforms, business services, and applications will reach \$236B—growing at a 22% CAGR between 2015 and 2020. The cloud approaches market will grow faster, with the 2020 total being 17% higher than the 2014 projection.-Forrester

- Enterprise cloud spending is growing at a 16%
 CAGR between 2016 and 2026. Silicon ANGLE
- At least half of IT spending will be Cloud-based in 2018, reaching 60% of all IT infrastructure, and 60–70% of all software, services, and technology spending by 2020. It is also guess that in the same year, cloud will be the preferred delivery mechanism for analytics.-IDC
- Cloud computing spending is growing at 4.5x the rate of IT spending since 2009 and is expected to grow at better than 6x the rate of IT spending through 2020. IDC
- The market revenue of Global Cloud IT is predicted to increase to \$390B in 2020, attaining a CAGR of 17%.—Bain & Company
- Spending on IT-as-a-Service for data centers, software and services will reach \$547B by the end of 2018.—Deloitte

Who will be the leader of Cloud Computing in 2018?

Amazon leads ahead of Google and Microsoft in cloud computing. Silicon ANGLE reports that the research firm, Wiki-bon predicts Amazon Web Services (AWS) will reach \$43B in revenue by 2022.

Microsoft on the other hand, though arriving late in the cloud computing industry, is still going strong in the game with its enterprise cloud, Azure. It is ready with its ability to compete head-to-head with Amazon.

Cloud Computing empowers developers & companies to innovate faster and cheaper. It's impressive that you can spin up any server, any operating system and stack in minutes to get rolling. It is far more secure than the

traditional on office systems and it is a better way to run

a business.

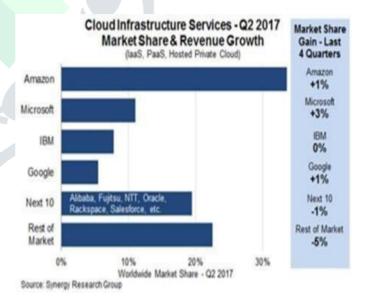


Fig:-Market share and Revenue Growth

Advantages

Advantages of using cloud computing that will influence the market's growth potential, include:

- Easily deployable models
- Simplified IT Management & Maintenance
- Built-in Security
- Remote Access
- Cost Efficient
- Reliable Delivery, Management, and Support Services

References

- Monjur Ahmed and Mohammad Ashraf Hossain, Cloud Computing and Security Issues in the Cloud International Journal of Network Security & Its Application (IJNSA), Vol.6, No.1, January2014.
- 2) Agrawal ,A. and Agrawal, A.(2011). The Security Risk Associated with Cloud Computing. International Journal of Computer Application in Engineering Science, 1(Special Issue on CNS) 257-259.
- 3) Emam, A.H.M (2013). Additional Authentication and Authorization using Registered Email-ID for Cloud Computing, International Journal of Soft Computing and Engineering, 3(2), 110-113.
- 4) Kim, J. and Hong, S. (2012). A Consolidated Authentication Model in Cloud Computing Environments. International Journal of Multimedia and Ubiquitous Engineering, 7(3), 151-160