A REVIEW ON CLOUD COMPUTING

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Abstract: Today is the era of Cloud Computing Technology in IT Industries. Cloud computing which is based on Internet has the most powerful architecture of computation. It reckons in of a compilation of integrated and networked hardware, software and internet infrastructure. It has various avails atop grid computing and other computing. In this paper, I have given a brief of evaluation of cloud computing by reviewing more than 30 articles on cloud computing. The outcome of this review signalizes the face of the IT industries before and after the cloud computing.

Keywords: Architecture, Infrastructure, Reviewing.

1. INTRODUCTION :

Cloud computing is the mode of executing the IT services in an elastic manner to the end users and providing a metered service at multiple granularities for a specified quality of service. Gartner defines cloud computing as " a style of computing where massively scalable IT-related capabilities are provided ' as a service' using Internet technologies to multiple external customers" . While Forrester says " Cloud computing is a new IT outsourcing model that doesn' t yet meet the criteria of enterprise IT and isn' t supported by most of the key corporate vendors. It' s wildly popular with startups, exactly fits the way small businesses like to buy things, and has the potential to completely upend IT as we know it."

From **1984 to 2008** the number of internet connected devices went from one thousand to one billion. Can the data deluge which the digital world is facing in this exponential time be effectively managed using cloud? The redundant data which resides on multiple devices might get consolidated and a single point of data source somewhere in cloud could be a solution **(The Economist, 2009).**

2. RESOURCE OF CLOUD COMPUTING :

Cloud computing can be divided into several sub-categories depending on the physical location of the computing resources and who can access those resources.

2.1. PUBLIC CLOUD COMPUTING :

Public cloud vendors offer their computing services to anyone in the general public. They maintain large data centers full of computing hardware, and their customers share access to that hardware.

2.2.PRIVATE CLOUD OMPUTING:

By contrast, a private cloud is a cloud environment set aside for the exclusive use of one organization. Some large enterprises choose to keep some data and applications in a private cloud for security reasons, and some are required to use private clouds in order to comply with various regulations. Organizations have two different options for the location of a private cloud: they can set up a private cloud in their own data centers or they can use a hosted private cloud service. With a hosted private cloud, a public cloud vendor agrees to set aside certain computing resources and allow only one customer to use those resources.

2.3.HYBRIDCLOUD COMPUTING :

A hybrid cloud is a combination of both a public and private cloud with some level of integration between the two. For example, in a practice called **"cloud bursting"** a company may run Web servers in its own private cloud most of the time and use a public cloud service for additional capacity during times of peak use.A multi-cloud environment is similar to a hybrid cloud because the customer is using more than one cloud service. However, a multi-cloud environment does not necessarily have

integration among the various cloud services, the way a hybrid cloud does. A multi-cloud environment can include only public clouds, only private clouds or a combination of both public and private clouds.

Apart from the above some resources, there are other Some

3.Important benefits Of cloud computing ;

❖ On-Demand Self-service.
❖ Multi-tenancy.
❖ Offers Resilient Computing.
❖ Fast and effective virtualization.
❖ Provide you low-cost software.
❖ Offers advanced online security.
❖ Location and Device Independence.
❖ Always available, and scales automatically to adjust to the increase in demand.
❖ Allows pay-per-use.
❖ Web-based control & interfaces.
❖ API Access available.

4. SOME PROS AND CONS OF CLOUD COMPUTING

4.1. PROS IN CLOUD COMPUTING:

A) Dumping the costly systems: Cloud hosting allows the businessmen to expense minimum cost for the systems management. Since, we can do everything in the cloud, the local systems need not to be used or have very less to do with thus saving the pocket that was used for costly devices.

B) Providing various options to access: Allowing the user to access cloud for various options irrespective of Computer only, making it most popular technology now a days. A person can access the cloud

out of office through Mobile IPod tablets etc making the work for the users easy and efficient. It's not only increasing the efficiency but enhance the services provided to the consumers. The consumer is made available with the desired files and documents with via single touch.

C)　　No Software maintenance Expense: Cloud computing is made as such it fulfills all the need for the software thus depriving the user to use costly software systems for the business. All the useful software are already kept of the cloud servers which makes the user tension free. It completely removes the scarcity for the users who can't afford the costly and expensive software and their license cost. Another booming feature of time to time software up gradation saves company's time and money.

D) Pre Processed Platform: The cost of adding new person is not affected by the setup of the application ,arrangement and installation for the new device. Cloud applications need not to be changed and can be used as it is, so there is no need to make changes on the platform for the new person or application to be added into it.

E)　Say No to Server: Using Cloud for the business　terminates the huge cost expense for the server. The extra expense involved in the maintenance of the server is removed up to some extent.

F)　Centralization of data: Other centralization of all the information of multiple projects and accessing data from the remote location with a single click is the most impressive assets of the Cloud.

G)　　No data is lost, can be recovered easily: Cloud computing provides a quick data recovery as all the data is stored in the cloud for the backup automatically. The recovery of the data is very costly or not possible in the personal Business Servers and thus waste lot of time and money.

H)　Centralization of data: Other centralization of all the information of multiple projects and accessing data from the remote location with a single click is the most impressive assets of the Cloud

4.2　　　CONS IN CLOUD COMPUTING :

A)　　Network Connection Dependency : In order to reap the benefits of cloud computing, your business must always have an internet connection. Unfortunately, there is no way to get around this fact. You need a network in order to send files to the cloud and retrieve them. You need a network to be able to use your virtual machines even if you opt for an IaaS, Infrastructure-as-a-Service. If you lose your network connection because of a storm or an outage, you may experience some downtime. However, a good Hosted Services provider will help you develop a business continuity plan, as well as the promise to deliver an SLA of more than 95% uptime.

B)　Limited Features : Not all cloud providers are created equally. When you use cloud computing for storage and backup, you should ideally be working with a provider who offers the value of unlimited bandwidth. You may also experience limited storage space or accessibility. SaaS offerings may usually begin with a free package, but

you will be charged for premium offerings and extra space. Can your business afford the costs as your business needs grow? The answer to the concern of limited features is to partner with a Hosted Services provider who can meet your cloud storage, virtualization, and backup needs both now and in the future when your business grows. Ideally, you will want to work with a provider who will offer you a Hosted Services package at the highest value for the features and space your business needs.

C) Loss of Control : You are, essentially, trusting another party to take care of your data. You are trusting that they will maintain their data centers and servers with the same care as you would, if not more. You have to trust that your provider's data centers are compliant and secured both physically and online. Some find the lack of in-house control of the server unnerving. If this is one of your concerns, work with a partner with local contacts. Speak one-on-one with a representative who can address your access concerns, and learn about the measures that the Hosted Services company takes to ensure the integrity and safety of their cloud servers.

D) Downtime : Downtime is often cited as one of the biggest disadvantages of cloud computing. Since cloud computing systems are internet-based, service outages are always an unfortunate possibility and can occur for any reason. Can your business afford the impacts of an outage or slowdown? An outage on Amazon Web Services in 2017 cost publicly traded companies up to $150 million dollars.

Unfortunately, no organization is immune, especially when critical business processes cannot afford to be interrupted. In June and July of 2019, a whole slew of companies and services were hit by outages, including Cloud flare (a major web services provider), Google, Amazon, Shopify, Reddit, Verizon, and Spectrum.

E) Vulnerability to attack : In cloud computing, every component is online, which exposes potential vulnerabilities. Even the best teams suffer severe attacks and security breaches from time to time. Since cloud computing is built as a public service, it's easy to run before you learn to walk. After all, no one at a cloud vendor checks your administration skills before granting you an account: all it takes to get started is generally a valid credit card.

5. CONCLUSION :

In conclusion, cloud computing is recently new technological development that has the potential to have a great impact on the world. It has many benefits that it provides to it users and businesses. For example, some of the benefits that it provides to businesses, is that it reduces operating cost by spending less on maintenance and software upgrades and focus more on the businesses it self. But there are other challenges the cloud computing must overcome. People are very skeptical about whether their data is secure and private. There are no standards or regulations worldwide provided data through cloud computing. Europe has data protection laws but the US, being one of the most technological advance nation, does not have any data protection laws. Users also worry

about who can disclose their data and have ownership of their data. But once, there are standards and regulation worldwide, cloud computing will revolutionize the future.

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