

A Brief Survey of Cloud Computing

Shivam Gandhi¹, Arpit Sharma¹, Dr. Deepak Chahal²

MCA Student, Department of IT, Jagan Institute of Management Studies, Sector 05, Rohini, New Delhi, India¹

Professor, Department of IT, Jagan Institute of Management Studies, Sector 05, Rohini, New Delhi, India²

ABSTRACT: Cloud computing is defined as technological advancement that emphasizes on the way in which we map computing system, develop applications and leverage existing services, compute potentially, storage, networking, and information technology infrastructure. Resources are made accessible through the internet. In this article we will discuss, what is cloud computing and a brief discussion on the basics of cloud computing, benefits, computing models and future scope.

KEYWORDS : Cloud, Computing, Security, Model

I.INTRODUCTION

Cloud computing is a term for managing operations and administration over the internet. Cloud computing implies security and accessibility of your data, records and tasks over the web instead of your personal computers. Cloud provides availability of your data at whatever time and location over the internet.

Cloud computing is delivered on demand services of computing it can be in the form of applications or data storage or any computing services you would like to do. Only the thing you need is the internet with good speed it could be a chargeable amount to use the services (pay as you go basis).

Now time to see how cloud computing works and how economy works here the benefits of using cloud computing is firm can scale down the upfront cost and managing their own IT infra, and they can simply pay for the services as they use it. The providers here can earn for the services they provide to the wide range of customers. There are many services available for cloud computing like the basics of storage, artificial intelligence. Examples of cloud computing are back-up of data on your phone, all video streaming services.

Cloud computing is now the default option for many software's and apps. The main concept of cloud computing is that the location of the services is just irrelevant to the customers who use it they just need the services don't care where is the services being provided from.



FIG: 1: Cloud Computing

II.CLOUD SERVICE MODELS

There are three types of models

1) Software-as-a-Service(SaaS)

Software as a service is the basically everyone has used till now or is mostly used and popular these days. The hardware and operating system is of no use for the end users here who will access the service via a web browsers

or app.

2) Platform-as-a-Service(PaaS)

Platform-as-a-Service (PaaS) is the next layer up this will include the extra tools needed for the software database management and operating systems and development tools.

3) Infrastructure-as-a-Service(IaaS)

Infrastructure-as-a-Service is basically means to provide the fundamental building blocks of computing that can be rented physically or virtually.

This for the companies that want to control nearly everything themselves, but it do require for the company to have that technical skills with them.

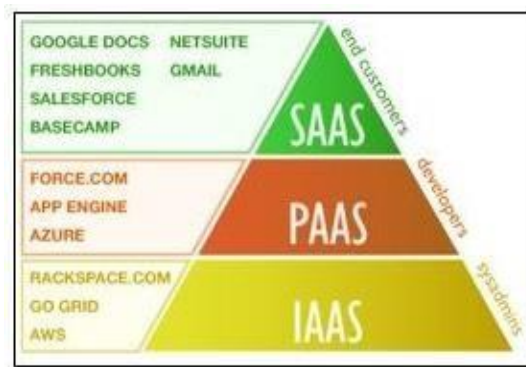


FIG 2 : Cloud Delivery Models

III.CLOUD DEPLOYMENTMODELS

1) Private Model

The private cloud can be defined as cloud service that runs over a private network and only for a single organization. The private cloud deployment model is best suitable for businesses with uncertain computing needs that involves direct control over their environments.

Benefits of private model are scalability, user self-service, but can also bring some complications into an organization.

2) Public Model

The public cloud is a classic model, where services or resources are dynamically equipped on self- service basis over the internet from a third party provider who charges the user on pay-per-use basis.

The provider owns and maintains compute resources and infrastructure that user access over the internet. There is no need foran organization to invest in hardware resources. Security of data is the major concern of some organization, the provider offers security, such as encryption, recognize and access management tools.

3) Hybrid Model

A hybrid cloud can be defined as a combination of both above cloud models from different service providers. Both on-premises resources and off-site servers are there in hybrid cloud architecture. The hybrid cloud facilitates the capability and capacity of a cloud service by means of aggregating, integrating and customizing it with other types of cloud.

This cloud deployment model takes the advantage of the scalability and cost-effectiveness of a public cloud without revealing applications and data beyond the corporate intranet.

IV.WHY CLOUD COMPUTING STANDS OUT?

1. Cost Saving: It is the biggest benefitof cloud computing. It helps you to save substantial capital cost as it does not need any physical hardware investments.
2. High Speed: Cloud computing allows you to deploy your service quickly in fewer clicks. This faster deployment allows you to get the resources required for your system within fewer minutes.
3. Back-up and restore data: Once the data is stored in a Cloud, it is easierto get the back-up and recovery of that, which is otherwise very time taking process on premise.

4. Reliability: You can always get instantly updated about the changes.
5. Maintenance: No need to install on every system. So maintenance is easy.
6. Productivity: Multiple users can work simultaneously in same data.
7. Unlimited Storage: The cloud offers unlimited storage. At any time you can quickly expand your storage capacity with very nominal monthly fees.
8. Security: Cloud provides security via various security and encryption models.

V. FUTURE SCOPE

The cloud industry is the present and future with abundance of job opportunities that are rising everyday. Scientific application is a department that is implementing cloud computing systems.

More and more companies are cloud enabled and in the future there will be more than 90%. All state and center are now and in the future will be providing most of the services of education, agriculture and health care through cloud computing and all data will be saved there. Future is bright for the gamers too, as when cloud computing will serve best the gamers can actually play high end games on their pc, on TV, on their phone even when the game doesn't support it all through cloud computing all the computations and processing will be handled somewhere else and you will be able to play a heavy end game on your phone which must be having a good internet probably a 5ghz. Cloud computing has become a popular model for reducing cost of business, improve quality of services, and provide good & secure computing [1].

By next 10 years every small or big businesses will be operating on cloud computing technologies.

VI. CONCLUSION

Technological innovations such as robotics, machine learning, cloud technology etc have established themselves very fast over the last few years and have now become a key element of the commercial and social economy [2]. In conclusion, Cloud computing is the best a human could ever had in terms of technology. Cloud computing is the best in providing users its benefits and reducing the overall operation cost and reducing the worry of organizing an organization of an IT. Though Cloud computing may face many challenges in the way to become the best it can ever become like insecurity of data people are very skeptical about the data is it safe or not? And are there security measures taking place to make data secure. But no one can stop cloud computing from revolutionizing the future. Moreover, cloud computing can help when there isn't any physical data left to store like when you ran out of space in your hard disk or pen drives. There are so many reasons that organizations are turning to cloud services these days - first it is a cost effective method in which you can eliminate capital expenses of buying hardware and software, data centers set-up and run [3].

REFERENCES

1. Kharb L. et al. A Comprehensive Study of Security in Cloud Computing, International Journal of Engineering & Technology, 7 (4) (2018) 3897-3901.
2. Chahal D. et al. The Developing Role Of Block Chain(R)Evolution, EPRA International Journal of Multidisciplinary Research (IJMR), Volume: 4 | Issue: 11 | November 2018.
3. Chahal D. et al. Data security in Cloud Computing, International Journal of Engineering Science Invention, Volume 6 Issue 12, December 2017 (PP. 31-36).