

Analysis of Cloud Computing Technology

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Abstract

Cloud computing is the good delivery model of cloud service over the internet. In this global world everyone used cloud computing. The technology was economically accepted because of less expensive. Internet is backbone for cloud computing technology. The cloud computing applied in Business, IT sector, social network sites, web mail etc. cloud is a 24X7 nonstop service element. Previous year back if any communication to other people from one place to another place only believes post mail and telephone link. Example, post mail is a late process to send to specific area. But there is a question how much person using letter mail today. In this system is totally changed and peoples are depend upon modern technology. Cloud is a tremendously developing technology in global world Cloud is an extreme benefit and good deployment model. Logically it is outsourced from the third-party, Example Google Drive is a world largest online storage. Till large amount of people nervous while they are using cloud computing, they are concern about the security risk. The paper discusses various risk threat and vulnerabilities located in cloud.

Keywords: Backbone, Cloud, Google Drive, Security, Tremendously

1. Introduction

Cloud service is famous in the global world because it reduces the cost to access the application, for a massive amount of data from anywhere in the world via internet. All over confidential data can be accessed from remote location over internet. Cloud computing mechanism provides many facilities to the client. The concept of easy delivery model make the cloud computing more attractive. The different types of cloud services are private cloud, public cloud and community cloud. The cloud computing technique helps to transfer the data anywhere in anytime. The computer user believed that the massive development of cloud service market, which likely to accomplish between \$150 billion and \$222.5 billion respectively in 2014 and 2015¹. In the entertained world all are spend the time in social network, web mail accessing the internet. The corporate companies trusted the third parties for designing cloud services, so it is a challenging task about security of the data. Now large amount of barrier in the security system and there is a question how to mitigate the security issue using encryption method to implement the data transfer in cloud.

2. Cloud Computing Architecture

Cloud computing is a model of network where machine with moderate data and application with connected a local computing device like that tablet, PC and smart phone. The application software and information can store through the internet. The Figure 1 describes the model diagram of cloud computing.

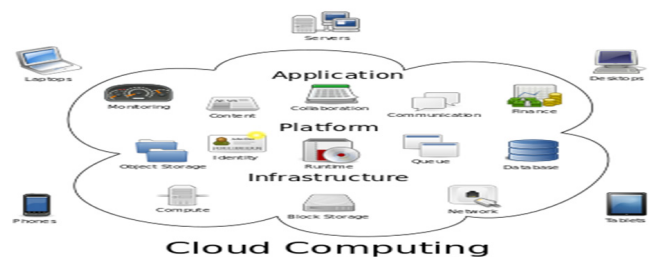


Figure 1. Architecture of cloud computing.

In this illustration, cloud computing service model are showing inside the picture such as desktop, laptop, tablet are similar to the client to obtain service from the cloud. Cloud computing make available a shared pool of

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configurable IT sector on require, which necessitate least effort of administration to get improved service.

3. Cloud Computing Deployments Model

There are three primary deployment models for cloud computing environment. There are three service model available in cloud computing given below,

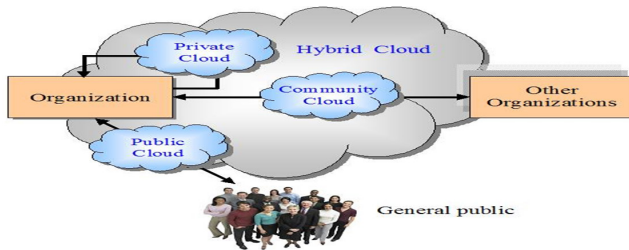


Figure 2. Cloud deployment model.

3.1 Private Cloud

The private cloud operated only in specific organization. It is managed by solely or third party. Private clouds are very safe and secure than the public cloud. It is managed only by authorized person. It access in a single organization. Private cloud establishes aims to clear many of the objections concerning in cloud computing security. The private cloud system is implemented carefully contained by the corporate firewall.

3.2 Public Cloud

The public clouds are used by world wide public such as email and social network sites. In public cloud large amount of data travelling publicly, it is ultimately scalable. Tiny to huge corporate and government entities use services provided in the public cloud. Public clouds can also usually deploy greatly quicker and with more scalability and convenience. Provisioning of communications and services is easy.

3.3 Community Cloud

Community cloud is shared by several organizations. Those specific communities whether manage internal organization or by third parties⁴.

4. Service Delivery Models

Cloud computing engaged with three various service

models², Software-as-a-Service (SaaS), Platform-as-a-Service (PaaS) and Infrastructure-as-a-Service (IaaS). These three models are accomplished by client and these structure are encapsulates to client. Cloud computing is internet based working technology environment, where shared information as a service to user. SaaS, PaaS, IaaS models are provide service over the network³.

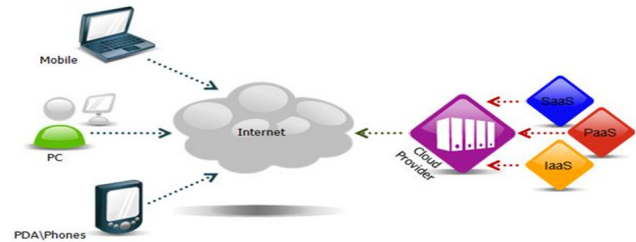


Figure 3. Cloud computing service model.

4.1 Software as a Service (SaaS)

In Software as a Service (SaaS) customers can access the application and data bases. SaaS provider commonly claims the cost via subscription fee. Software is maintain by developers⁵. Example: ZenDesk, Zohooffice, salesforce.com and Twitter.

4.2 Platforms as a Service (PaaS)

In this model (PaaS) delivers the platform classically in data base and web server. Application developer individually create the solution were (PaaS) model without the cost. Developed inscalability of deployment software. In conclusion (PaaS) is helpful developer wish to computerize testing and deployment service eg: Force.com, window azure.

4.3 Infrastructures as a Service (IaaS)

Infrastructure as a service is helpful to delivering cloud computing infrastructure storage and server in procession of business demo are anything infrastructure as a service id needed. Example: Flexi scale, Rack space, server path.

5. Conclusion

The paper discusses about cloud computing basic model, type and services. The cloud computing technology is less expensive for the organizations to maintain the entire resources in remote location. It is best way to blow out the data and it became easy to access the resource from longer distances. The limitation of the cloud is security.

It is difficult to maintain backup where the data stored in cloud.

6. References

1. Carroll M, van der Merwe A, Kotze P. Secure cloud computing: Benefits, risk and control. *Information Security Africa(ISSA)*. 2011 Aug; 1–9.
2. Subashini S, Kavitha V. A survey on security issues in service delivery models of cloud computing, *Journal of Network and Computer Application*. 2011 Jan; 34(1):1–11.
3. Humphery M, Thompson MR. Security implication of typical grid computing usage scenarios. *Cluster Computing*. 2002 Jul; 5(3): 257–64.
4. Mell P, Grance T. The nist and definition of cloud computing (draft) recommendation of the nation institute of standard and technology. *Nist Special Publication*. 2011 Sep; 145(6).
5. Elahi T, Pearson S. Privacy assurance bridging the gap between preference and practice. In: Lambrinouidakis C, Pernul G, Tjoa A, editors. *Trust, Privacy and Security in Digital Business*. 2007; 4657:65–74.