



ENHANCEMENT OF CLOUD SECURITY USING ENHANCE MULTIPLICATIVE INVERSE

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Abstract: In this research paper the discussion has been regarding cloud computing and services offered by it. This chapter focuses on the threats to cloud environment from external attacks. In order to make comparative analysis several existing researches have been discussed. The loop holes of those researches are considered. Then a proposed model with integration of MD5 and multiplicative inverse has been developed. This work has introduced more security to the cloud environment. More over the size of packet got reduced that result in high performance of system. The system is more secure and reliable due to integration of two cryptographic mechanisms.

Keywords: Cloud computing, security, MD5, Multiplicative inverse,

[1]Cloud computing

Cloud computing provides service over networks, which may be public or private. Cloud is available at a remote location. There are a lot of applications like email and web dependent applications where cloud computing is used. Cloud computing [1] has offered Platform independency. Thus, there is no need to setup particular software on the computer. The services offered by cloud computing are shown in Figure 1

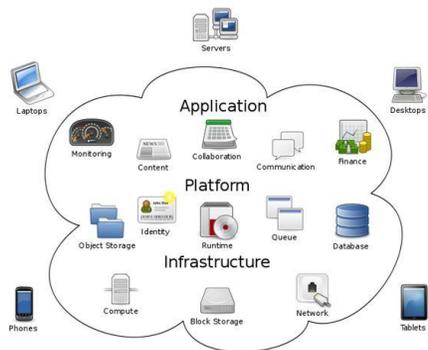


Figure 1 cloud computing services

Some more benefits of cloud computing [3] which have been listed below: -

(i)Cost: - It includes the racks of server, electricity for power and cooling. It adds up fast.

(ii)Global Scale: - It includes features like more and less computing power, bandwidth etc.

(iii)Speed: - Mostly cloud computing services offers self-services. It also offers some other services to clients as on-demand.

The quantity of computing resource may be provisioned in minutes.

(iv)Productivity: - In IT sector, team can spend time to get more important business goals. So, there are facing many problems. These problems are software patching, hardware set up and other IT management chores. Can handle easily these problems by using cloud. Thus, it makes the productivity high.

(v) Reliability: - The reliability of cloud computing is so high. And it is reliable in nature.

(vi) Performance: - the performance of cloud computing is good. It is compared to another network connections and services.

Deployment model

There are three different types of [8] cloud computing deployment.

(a) Private Cloud: - A single business or a single organization is included in that type of cloud. It is physically placed on the organization's on-site datacenter. The maintenance of cloud services and infrastructure is done on a private network.

(b) Public Cloud: - Cloud service provider maintains the public cloud who is a third party. It delivers their computing resources such as storage and servers over the internet.

(c) Hybrid Cloud: - an arrangement of public cloud and private cloud has been called Hybrid cloud. This cloud offers great flexibility and more deployment option. These three deployments are defined in

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