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Maintenance of Transparency in Cloud Computing Through Different Approaches

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Abstract: In the cloud computing and distributed database systems is some aspect of transparency, for hidden information from the users (programmer, system developer, and application program). In the distributed database systems are used some set of transparency mechanisms in cloud computing at a layer interface, where transparency is required. In this paper, we construct the diagram and using application layer framing. we will describe how to maintenance of transparencies interact in the cloud computing environment. It considered that if using such type of approaches such as: Application Layer Framing, it will maintain of transparency in cloud computing.

Keywords: Distributed System, Transparency, Cloud Computing, Application Layer Framing Approach.

I. INTRODUCTION

Cloud Computing is responsible for delivering different applications and service to end user in an on demand manner with rapid elasticity. Providers of cloud computing provide their customers a secure, reliable cloud services. Transparency, security, availability are needed to accomplish their goal for betterment service. In this paper we will discuss about transparency of cloud and maintenance of transparency layer through Application Layer Framing. The remainder of this paper is organized as the 2nd section presents transparency in cloud computing. 3rd section contains approaches maintain of transparency in cloud computing. 4th section contains related work. The 5th section concludes and future research direction.

II. TRANSPARENCY IN CLOUD COMPUTING

Transparency is an important feature in cloud computing but it is actually acted as fundamental concept without physical implementation in cloud. This concept acted as virtualized layer, which can create a illusion to users, where multiple number of servers or storages appear as single server or storage. Single server and resources are not always capable to meet the requirement of users so; transparent load balancing and application layer framing are needed in a on demand manner. Transparent horizontal scaling are required in application layer which provides the solution of load balancing of high workload.

III. APPROACHES MAINTAIN OF TRANSPARENCY IN CLOUD COMPUTING

A) Consistent and intelligent monitoring

To achieve the transparency in cloud Handlings of large data centre of cloud are important task and to do that we will maintain intelligent monitoring capabilities. Through consistent monitoring we can able to understand whether a server is overloaded or not and how it adversely affects the application performance. State of application and network depends on control nodes which manage the correlation with other nodes. If any application run slowly, or if many users use a system concurrently and systems reaches it capacity cloud service, all can be detected by constant monitoring which provide better service to customers [2], [3].

B) Application Layer Framing

Application Layer Framing is a design principle for protocols for Distributed-Computing and Cloud computing. Application level identifiers are used to identify protocol data units and improve performance [3]. C. Strategic Approach

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framing the cloud Cloud computing technologies plays a important role in existing enterprise networks and encompass system in designing, implementing, and managing of information technology industry and data centers. The applications are not bounded only physical region they are extended logically by virtualization in a cloud computing environment. The service providers of cloud provide many facilities and dispersed support to make a applications performed well [4], [5], [6].

C) Improving network infrastructure

When saving of cost are used network infrastructure and consolidation of the computer centers. The saving of the physical space, entire data centers outsourcing, and infrastructure provides for the cloud computing. When reducing the cost of information systems updating and created infrastruct ures through cloud provider is transferred for the prime benefit. IT designed capabilities and autonomy for the customers levels describe through cloud services. It has three levels of cloud service models, which is industry oriented and it is also used in widely form such as: Infrastructure-as-a-Service (IaaS), Platform-as-a-Service (PaaS), and Software-asa- Service (SaaS). The virtualized of cloud environment, it requires capabilities tend to much lower cycles processing on servers. When initialized the capabilities migration for cloud environment are archiving content, electronic mail, and all benefits are consolidation into a virtualized cloud environment. Private sectors budgets and government budgets are also shrinking for the purpose of data security and IT investments needs to adopt cloud computing which may assist in accomplishing cost-saving efforts [4], [9].

IV. RELATED WORK

Cloud computing has ability to deliver low cost information and get resource solution for the biggest promises systems. It has delivered same services to one or more users provide for economic of scale based services and it is not a exclusively cutting costs systems. It has more advantages, including cost -effectively security. In the security implemented, it will add significant way for cost of the cloud infrastructure, reduce economics viability, and create a rollback to adoption for cloud infrastructure. Some related work of the transparent cloud has been done such as: scheduling of communication, aggregation data, and bandwidth of full bisection. Communication of scheduling: using TCP mechanisms communication scheduling has been established. Transfer rate of data is proportional to data size. The route allocation of data is dependent on communication scheduling. Data Aggregation: some system proposed to reduce the overhead of data being transferred. Clustering helps to data aggregation during transfer. Some research has been done on this topic. Bandwidth of full bisection: many topologies are proposed about transparency of data and flow of data in different route.

V. CONCLUSION AND FUTURE WORK

In this paper, we investigate that if all transparency have an associated cost with others, matter for much research how to maintain of Transparency in Cloud computing, if using such type of approaches such as: Application Layer Framing. In the future work, we will find that how to reduce the operating system and communication stack, when it was transparent an associated with others and implement multiple transparencies interact how to.

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