A Study on Virtue and Faults of Security in Cloud Computing

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Abstract— Cloud computing is a web technology computing which requires large scale processing and computing. For this extensive processing, it requires security and protection in cloud computing for shareable configurable resources for on-demand access. This paper describes about the cloud computing merits and demerits of existing security and protection models in cloud computing

Keywords- indexing, private cloud, protected cloud, public cloud, service provider, client owner

I. INTRODUCTION

In this modern era, internet world changes rapidly in the world of changing environment storage of data is necessary and compulsory. This data needs to be secure, protected and reliable. This paper clears out misconception and misunderstanding of various hurdles of security that can affect the whole cloud computation. The two main reason in hurdles of security is centralization of data and day to day increasing security resources1. Centralization of data [1,2].

- Loss of sensitive data if it is stored in centralized storage
- It may occur due to lack of design in kernels
- It may also be due to not up gradation of storage
- Security resources
- Some users cannot afford resources because of higher cost
- It is not accessible to other computers.
- Complexity of resources when data is distributed over shared distributed network

Security concerns issues-

- a. Activity- In organizations they do not provide flexibility in users of accessing data
- b. Maintenance- In some organizations the of cloud computing is not done at time to regular time interval
- Peak Load capacity-It is that load can be loaded in distributed network
- d. Scalability- Is the computing is scalable for on going demand for resources or not
- e. Utilization- How much efficiency is utilized in computing and large processing of data
- Reliable- Is that data is valid or not valid authorized or unauthorized

Cloud computing as a services

Software as a Service (SaaS).

The access provided to the consumer is to use the provider's applications running on a cloud atmosphere. The programs are accessible from various client devices through either a thin client interface, such as a web browser, or application. The consumer does not need to manage or control the underlying cloud infrastructure including network, servers, or even individual application facilities with the possible exception of fewer user-specific application control panel.[3]

Platform as a Service (PaaS).

The task provided to the consumer is to deploy onto the cloud infrastructure consumers creation by using programming languages, framework, and tools supported by the provider. The consumer does not manage to the underlying cloud infrastructure including network, servers, operating systems but it has control over the deployed application and possibly configuration settings for the hosting environment.[2]

Infrastructure as a Service (IaaS).

The facility provided to the consumer is to provision processing, storage, networks, and other fundamental computing capabilities where the consumer can deploy and run any software, which can include operating systems and applications. The consumers do manage or control the presenting cloud infrastructure but have control over operating systems, storage, and deployed and possibly limited control of select networking components.[4]

II. LITERATURE SURVEY-

In existing solution, it did not adequately describe the task of classification due to which they classify into public, private and protected. It describes the ordering of indexing process but it does not explain the how many bytes require for cryptography and they do not describe attacking

techniques which are using for security. This paper does not contain valid token generation of the data, and it does not show any solid case for making classification in private and protected. The retrieval process is very lengthy and time was taken, it show little faster-retrieving access mechanisms. In enhanced fault tolerance technique it does not describe how much data is required to check the reliability of the data. The time checker algorithm is good module foe time execution test, but reliability processor and decision-making system does not accept the system fault tolerance .the decision system does not correct for the guest level operating system, and it does not describe how much exact time executed for checking tolerance[5][6].

In some existing solution, they represent the model mandatory accessing controls by bypassing accessing controls, but this situation can be catastrophic because some majors concerns issues will be skipped like agility, maintenance. The process of decentralizing the data can be achieved by if the owner have the permission of accessing controls and the data is distributed over the shared network area for large scale computing[7][8].

III. PROPOSED SYSTEM

Our model approach to finding new algorithm for the both static and dynamic classification, not only this doing indexing in forwarding and backward order after the token generating process. Our model approach to finding new policies for the changing the classification and develop a methodology for accessing mechanisms in private and protected cloud

IV. CONLUSION AND FUTURE WORK

This paper provides information about merits and demerits of security and reliability in cloud computing. This paper tells about the classification and indexing into many clouds computing is a significant processing of data that can achieve millions of operations. The cloud computing system must ensure their security and reliability so that it can be better placed for marketing and business purpose also.

Day by day increasing the data and growth in customer demand may affect cloud computing processing, so in future research should mainly focus security and reliability of the data in cloud computing

V. REFERENCES

- [1] A. K. Singh, "A Study on Merits and Demerits of SAN Protocols," vol. 3, no. X, pp. 1–5, 2015.
- X. Qiu, Y. Dai, Y. Xiang, L. Xing, and S. Member, [2] "Reliability, Performance, and Power Consumption of a Cloud Service," vol. 46, no. 3
- Surabhi Shukla and Dharamjeet kumar, "Cloud's [3] Software- Security as a Service(S-SaaS) via

- Biometrics", International Journal of Computer Sciences and Engineering, Volume-02, Issue-03, Page No (119-124), Mar -2014
- [4] W. Li, Y. Yang, and D. Yuan, "Ensuring Cloud Data Reliability with Minimum Replication by Proactive Replica Checking," *IEEE Trans. Comput.*, vol. 65, no. 5
- M. Kangas, S. Glisic, S. Member, Y. Fang, and P. Li, [5] "Resource Harvesting in Cognitive Wireless Computing Networks With Mobile Clouds and Virtualized Distributed Data Centers: Performance Limits," IEEE Trans. Cogn. Commun. Netw., vol. 1, no. 3
- [6] Richa Arya, "Triple Security of File System for Cloud Computing", International Journal of Computer Sciences and Engineering, Volume-02, Issue-03, Page No (148-154), Mar -2014
- G. Fan, H. Yu, S. Member, and L. Chen, "A Formal [7] Aspect-Oriented Method for Modeling and Analyzing Adaptive Resource Scheduling in Cloud Computing," vol. 13, no. 2, p.
- [8] Shaheen Ayyub and Devshree Roy, "Cloud Computing Characteristics and Security Issues", International Journal of Computer Sciences and Engineering, Volume-01, Issue-04, Page No (18-22), Dec -2013.
- J. Bacon, D. Eyers, T. F. J.-M. Pasquier, J. Singh, I. [9] Papagiannis, and P. Pietzuch, "Information Flow Control for Secure Cloud Computing," *IEEE Trans. Netw. Serv.* Manag., vol. 11, no. 1,
- M. Amoon, "Adaptive Framework for Reliable Cloud [10] Computing Environment," IEEE Access, vol. 3536, no. c
- [11] K. Goyal, "International Journal of Advanced Research in Computer Science and Software Engineering Review of Different Energy Saving Techniques in Cloud Computing," vol. 3, no. 7, pp. 1038-1042, 2013.
- [12] A. Sharma, S. Gupta, D. Mann, and S. Akhtar, "A Combined Model to Ensure Complete Security and Reliability in Cloud Computing," vol. I, pp. 21–24, 2015.

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