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Distribution and Duplication of Records in Darken for Optimal Performance and Safety

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ABSTRACT

Now a day in cloud the data security is the major problem. various third party provide cloud storage to us but person who use that don't know whether the data is secured in cloud are not to avoid data hacking from cloud here the data are fragmented and stored into various data servers the fragmentation of data is done using fragmented key and using that key the data is again retrieved an given back to the user due to fragmentation data and data also protected using an T-Coloring theorem the data are fragmented and stored in various data servers the hacker would get only an small part of information which would not be useful to him.

Keywords : Platform as a Service, Infrastructure as a Service, Software as a Service, google app engine, Microsoft azure, zoho, VPC, DCN

I. INTRODUCTION

Cloud computing is use to deliver computing service using internet. Cloud computing is used to access the pooled resources required for computing through our browser's window. Cloud computing is referred to an application and service which run of many number of system in virtualized resource using internet protocol and network standards. In cloud computing we use public or private network which is created using many no of system to provide scalable infrastructure for application file system and data's.

The five characteristic of cloud computing is:

1. On-demand self-service
2. Resource pooling
3. A broad network access
4. Rapid elasticity
5. Measured service

Cloud computing consist of servicing modes such as

1. Software as a Service (SAAS)
2. Platform as a Service (PAAS)
3. Infrastructure as a Service (IAAS)

Software as a Service is a licensed service which provides cloud based on pay per use model.it is used for billing purposes. Provided by google, mails, Facebook.

Platform as a service is use to provide services such as building, delivering and deploying web applications.it is provided by google app engine, Microsoft azure, zoho.

Infrastructure as a service is based on demand self-service and scalable service. Providers are amazon elastic computing cloud, go grid etc.

Cloud deployment models are:

1. Public cloud
2. Private cloud
3. Hybrid cloud

Public clouds are made available for public usage it is provided by google app engine, azure and IBM. Private cloud is used by organization it is provided by VMware cloud infrastructure, amazon VPC. Hybrid cloud is a combination of various public and private networks which is a provided by an organization called google.

II. RELATED WORK

This project Distribution and Duplication of Records in Darken for Optimal Performance and Safety is use to protect the data of user from unauthorized person. Each user is given and unique login and password when user logging in his account and upload an file in cloud. The fragmented of data is done using T-Coloring process. It is an process where two adjacent node don't have same color .The data is fragmented in smaller data's using an key called fragmented key using this key the data are again reserved back.to protected data Manchester's algorithm is used. This is and cryptographic algorithm which is use to route the data to various data servers and store them using the fragmented key. Using this process the data in cloud is secured if any hacker accesses the data they will only get a not useful data. Thus the data in cloud is protected.

III. LITERATURE SURVEY

S.NO	TITLE	AUTHOR	CONCEPT	YEAR	ADVANTAGES	DISADVANTAGES
1	On the Characterization of the Structural Robustness of Data Center Networks	Kashif Bilal, Marc Manzano, Samee U. Khan, Eusebi Calle, Keqin Li, Albert Y. Zomaya,	Cloud computing provide an essential way of secure data with various domains such as agriculture, nuclear science, smart grids, healthcare, and search engines for research, data storage, and analysis. Data center networks (DCN). Here multilevel graphical models are presented for various DCN. Various failure scenario of classical robust is used for performing comparative analysis. DCN robust is evaluated using classical network.	2013	Data center network is used to provide secured data for cloud computing	Since there is no study of DCN we need to provide a new procedure to develop DCN
2	Energy-Efficient Data Replication in Cloud Computing Datacenters	Dejene Boru Dzmitry Kliazovich, Pascal Bouvry Fabrizio Granelli Albert Y. Zomaya	In a network Cloud computing provide computing resources services in data center data replicate in cloud computing is an major process.in this both energy and bandwidth is considered for data replicate process of an system. Reducing of communication delay is used to provide efficient quality of services (QOS). The result during elevation of extension simulation helps to check the performance and energy efficiency.	2015	Data replicate is reduced	Contains mathematical formulations

3	Intrusion Tolerance in Distributed Computing Systems	Yves Deswarte Laurent Blain Jean-Charles Fahe	It is designed so that any confidential data cannot be accessed in distributed system access of private data is easy. To avoid this user authentication and authorization is used and file management application is used.	2002	Data in distributed system is protected using user authenticati on	Data loss is possible
4	Understandi ng Cloud Computing Vulnerabiliti es	Bernd Grobauer Tobias Walloschek Elmar Stocker	In Cloud computing security is a major issue. Due to these issues it is difficult to formulate a well-defined assignment. Basic vocabulary items such as risk, threads and vulnerability. Vulnerability is the probability that an asset will be unable to resist the actions of a threat agent. Vulnerability exists when there is a difference between the force being applied by the threat agent, and an object's ability to resist that force.	2010	Vulnerabilit ies in cloud computing is reduced	Need to provide more efficient algorithm to provide security in cloud.
5	Frequency Assignment: Theory and Applications	William K Hale	Here minimum order approach to frequency assignment and present a theory and application is introduced	1980	It gives noiseless reception. The efficiency of transmission is very high.	FM transmitting and receiving equipment's tends to be more complex. A much wider channel is required by FM.
6	Cloud Hooks: Security and Privacy Issues in Cloud Computing	Wayne A. Jansen	It provides a useful analogy for cloud computing with security and services. It believes in long-term significance of cloud computing with security and privacy based on documentations problems and exhibited weaknesses.	2011	Provide security in cloud computing using cryptograph y	To many controls may be inefficient and ineffective
7	Secure Dynamic Fragment and Replica Allocation in Large-Scale Distributed File Systems	Alessandro Mei, Luigi V. Mancini, and Sushil Jajodia	File allocation is done using distributed algorithm in larger distributed file system. Fragmentation schema is used to store the data in multiple servers. The file secured s preserved. This algorithm changes the file allocation and read pattern and	2012	Efficient algorithm is used to store data in multiple servers	Security is low

			location of client in a network.it providess maximizing the file assurance.			
8	Data Security in the World of Cloud Computing	John Harauz, Lori M. Kaufman, Bruce Potter	Data security is a major problem in cloud computing, To provide security many security algorithm is used. Many tools are available to provides system security such as patch manager etc.	2009	Various security algorithm is used to protect data	Security is less and implementations of security algorithm is high
9	Secure Overlay Cloud Storage with Access Control and Assured Deletion	Yang Tang, Patrick P.C. Lee, John C.S. Lui, Radia Perlman,	Cloud computing proved a storage which reduce the cost of data management. Nowadays security is maintained by third parties here we introduce FADE a security algorithm which is build using cryptographic key. Our work provides insights of how to incorporate value-added security features into today's cloud storage services	2012	Provide an efficient algorithm FADE to provide security in cloud services	Security is low
10	On the Optimal Placement of Secure Data Objects over Internet	Manghui Tu, Peng Li, Qingkai Ma, I-Ling Yen, Farokh B. Bastani	Optimal allocation of secure data is investigated. System topologies consist of two layers. Multiple clustering of network topology is in upper layer. This clustering are represented in general graph. The problem of shared replica is decomposed into two sub problems. They are set problem and -intra-cluster allocation problem They are Here we develop two different heuristic algorithm for two sub problems The algorithm for the set problem has a time complexity of O(n2). An O(n3) algorithm is presented for the intra-cluster allocation problem.	2005	Dependence of data object in a network is reduced.	Data security is less
11	Security and Privacy-Enhancing Multicloud Architecture	Jens-Matthias Bohli,Nils Gruschka, Meiko Jensen, Luigi Lo Iacono, Ninja Marnau	Security challenges are still the major drawbacks in cloud services. The cloud par diagram comes with new feature along with the security issues, which provides an open the path toward novel security approaches, techniques, and architectures. It provides security merits by making use of multiple distinct clouds simultaneously. Various distinct	2013	It provide various security metrics on cloud	Security is less

			architectures are introduced and discussed according to their security and privacy capabilities and prospects.			
12	On the Reliability and Energy Efficiency in Cloud Computing	Yogesh Sharma, Bahman Javadi, Weisheng Si	As cloud computing became famous it have been necessary to provide on demand services based on user. Requirement reliability and energy efficiency is big challenge in cloud. It provides a review on existing techniques for reliability and energy efficiency and then identifies the research gaps for combining these two metrics for resource provisioning in cloud.	2015	Provides an efficient technic to overcome drawbacks of cloud	Required more times
13	Protected data objects replication in data grid	G. Aruna Kranthi D. Shashi Rekha	In this paper, the security and data access performance are critical issues. More specifically, we investigate on data optimization and provide distribution of data based on secret schemas. We decompose the share replica allocation problem into two sub problems: the Optimal Inter cluster Resident Set Problem (OIRSP) that determines which clusters share replicas and the Optimal Intra need cluster Share Allocation Problem (OISAP) that determines the number of share replicas needed in a cluster and their placements.	2012	Data is secured based on various methods	Due to data is divided data loss is possible
14	Novel Architecture for Intrusion-Tolerant Distributed Intrusion Detection System using Packet Filter Firewall and State Transition Tables	Dr. S.G. Bhirud Vijay Katkar	It presents the design and implementation of Novel Intrusion-Tolerant Distributed Intrusion Detection System using Packet Filter Firewall and State Transition Tables. Proposed architecture is immune to both, failure of IDS components and compromised IDS components. This architecture is capable of restricting the effect of network attacks like DoS, DDoS and Probing to a subset of network. Experimental results prove the usefulness and efficiency of this architecture.	2010	Provides more security	High level of knowledge is required

15	Addressing cloud computing security issues	Dimitris Zissis Dimitrios Lekkas	It proposes introducing a Trusted Third Party tasked with assuring specific security characteristics within a cloud environment. The proposed solution calls upon cryptography, specifically Public Key Infrastructure operating in concert with SSO and LDAP, to ensure the authentication, integrity and confidentiality of involved data and communications. The solution, presents a horizontal level of service, available to all implicated entities, that realizes a security mesh, within which essential trust is maintained	2010	Trusted third parties are used	Security implementation is little costly

IV. CONCLUSION

This project focusses on data security on cloud. Now a day most of the people uses cloud to store data in cloud there are various security constraint in cloud. Since the data in cloud are not secured the data in cloud are separated and stored in various data centers using Manchester's algorithm and the data are separated by using t-coloring process and fragmentation key. Thus the data hacking is reduced from cloud.

V. FUTURE WORK

In feature mostly all person will use cloud to store data so we need to develop and security algorithm to protect the data in cloud and thus this project will be implemented with new security algorithms and will be helpful to protect data in cloud.

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