**SEPDP: Secure and Efficient Privacy Preserving Provable Data Possession in Cloud Storage**

Cloud computing is an emergent paradigm to provide reliable and resilient infrastructure enabling the users (data owners) to store their data and the data consumers (users) can access the data from cloud servers. This paradigm reduces storage and maintenance cost of the data owner. At the same time, the data owner loses the physical control and possession of data which leads to many security risks. Therefore, auditing service to check data integrity in the cloud is essential. This issue has become a challenge as the possession of data needs to be verified while the privacy. To address these issues this work proposes a secure and efficient privacy preserving provable data possession (SEPDP). Further, we extend SEPDP to support multiple owners, data dynamics and batch verification. The most attractive feature of this scheme is that the auditor can verify the possession of data with low computational overhead.

**EXISTING SYSTEM:**

Storage-as-a-service it raises several security threats as data is under the control of the cloud service provider (CSP). CSP can discard the rarely accessed data to save space and earn more profit, or it can lie about the data loss and data corruption, as a result of software/ hardware failure to protect its reputation. Therefore, it is necessary to check the possession of data in the cloud storage Traditional cryptographic solutions for integrity checking of data, either need a local copy of the data (which the data users (DUs) do not have) or allow the DUs to downloads the entire data. Neither of these solutions seems practical as earlier one requires extra storage and later alternative increases the file transfer cost. To address this issue, several schemes including Shacham et al. Scheme, Wang et al. Scheme, are proposed which employ block less verification to verify the integrity without downloading the entire data. One of the attractive features of these works is to allow the public verifier to verify. With public audit ability, DUs can recourse the auditing task to a third party auditor (TPA). It has expertise and capabilities to convince both the CSP and the DU. These schemes use provable data possession (PDP) technique, which gives probabilistic data possession guarantee by randomly verifying few blocks for ensuring possession of data in the un-trusted cloud storage.

**DISADVANTAGES OF EXISTING SYSTEM:**

* Verification Process is slow.
* It will provide the Data dynamics (Update, Delete) in the cloud without any verification.
* Cost is high to maintaining the storage.

**PROPOSED SYSTEM:**

Cloud computing is an emergent paradigm to provide reliable and resilient infrastructure enabling the users (data owners) to store their data and the data consumers (users) can access the data from cloud servers. This paradigm reduces storage and maintenance cost of the data owner. At the same time, the data owner loses the physical control and possession of data which leads to many security risks. Therefore, auditing service to check data integrity in the cloud is essential. This issue has become a challenge as the possession of data needs to be verified while maintaining the privacy. To address these issues this work proposes a secure and efficient privacy preserving provable data possession (SEPDP). Further, we extend SEPDP to support multiple owners, data dynamics and batch verification. The most attractive feature of this scheme is that the auditor can verify the possession of data with low computational overhead.

**ADVANTAGES OF PROPOSED SYSTEM:**

* Verification process is very fast.
* Computational cost is low compare to the Existing systems.
* Security level is high.

**SYSTEM ARCHITECTURE:**

****

**SYSTEM REQUIREMENTS:**

**HARDWARE REQUIREMENTS:**

* System : Pentium Dual Core.
* Hard Disk : 500 GB.
* Monitor : 15’’ LED
* Input Devices : Keyboard, Mouse
* Ram : 1GB.

**SOFTWARE REQUIREMENTS:**

* Operating system : Windows 7.
* Coding Language : JAVA/J2EE
* Tool : Netbeans 7.2.1
* Database : MYSQL

**REFERENCE:**

Sanjeet Kumar Nayak, Student Member, IEEE, and Somanath Tripathy, Senior Member, IEEE, “**SEPDP: Secure and Efficient Privacy Preserving Provable Data Possession in Cloud Storage**”, IEEE Transactions on Services Computing, IEEE Xplore: 19 April 2018, DOI: 10.1109/TSC.2018.2820713