

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

ABSTRACT:

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.

SYSTEM REQUIREMENTS:

HARDWARE REQUIREMENTS:

- System : Pentium i3 Processor.
- Hard Disk : 500 GB.
- Monitor : 15’’ LED
- Input Devices : Keyboard, Mouse
- Ram : 4 GB

SOFTWARE REQUIREMENTS:

- Operating system : Windows 10.
- Coding Language : Java
- Web Framework : Flask

REFERENCE:

S. K. Nayak and S. Tripathy, "SEPDP: Secure and Efficient Privacy Preserving Provable Data Possession in Cloud Storage," in IEEE Transactions on Services Computing, vol. 14, no. 3, pp. 876-888, 1 May-June 2021, doi: 10.1109/TSC.2018.2820713.