

PP-CSA: A Privacy-Preserving Cloud Storage Auditing Scheme for Data Sharing

ABSTRACT:

Data sharing is one important service provided by cloud storage. In order to share data conveniently and securely, Shen et al. proposed a cloud storage auditing scheme for data sharing, which uses the sanitizable signature to hide sensitive information. However, it may cause unauthorized access to the data, since anyone can access the data stored on the cloud server. This article proposes a privacy-preserving cloud storage auditing (PP-CSA) scheme for data sharing, where only authorized users can access the data. Furthermore, PP-CSA adopts the Diffie–Hellman protocol to avoid the secure channel between the data owner and the sanitizer. Finally, the security analysis and the experimental results prove that the security and efficiency of PP-CSA can be accepted.

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:

Y. Xu, L. Ding, J. Cui, H. Zhong and J. Yu, "PP-CSA: A Privacy-Preserving Cloud Storage Auditing Scheme for Data Sharing," in IEEE Systems Journal, vol. 15, no. 3, pp. 3730-3739, Sept. 2021, doi: 10.1109/JSYST.2020.3018692.