

Secure Cloud Storage with Deduplication Technique

Ms. Aishwarya S. Khutwad¹, Mr. Ajay P. Ganore², Mr. Shubham B. Ganore³, Mr. Vishal P. Shinde⁴
Lecturer, Department of Information Technology¹
Students, Department of Information Technology^{2,3,4}
Mahavir Polytechnic, Nashik, Maharashtra, India

Abstract: Data de-duplication refers to providing cloud providers with a way to manage the uncontrollable data and the challenges of cloud storage. The success of IOT and social media led us to face big data challenges. Big data is interesting but also becomes a critical challenge for cloud service providers. Data storage and management become also the topic of discussion where big data generate business opportunities as well as come with big issues for the cloud providers. In this paper, we discussed the issues of redundant data and techniques to prevent data redundancy on the cloud. A third-party auditor checks the user's data for correctness and gives the accuracy of the data that is stored in a cloud server. The communication and computation overheads were reduced. The deduplication technique is used to check whether the file that users need to store in cloud storage already exists on the cloud server.

Keywords: Cloud service provider; deduplication; third party auditor; data dynamics

REFERENCES

- [1] M amdaqa, M., & Tahvildari, L. (2012). Cloud Computing Uncovered: A Research Landscape. H. Ali & M. Atif (Eds.), Advances in Computers Elsevier. 41–85.
- [2] Wang W., Zeng, G., Yao, J. (2012). Cloud-DLS: Dynamic trusted scheduling for cloud computing original research article. Expert Systems with Applications, 39(3), 2321-2329.
- [3] Lin Y., Chang, P. (2011). Maintenance reliability estimation for a cloud computing network with node failure. Expert Systems with Applications, 38(11), 14185-14189.
- [4] Chen, L., Zhou, S., Huang, X., Xu, L. (2013). Data dynamics for remote data possession checking in cloud storage. Computers and Electrical Engineering, 39, 2413-2424.
- [5] Jin Li, Yan Kit Li, Xiaofeng Chen, Patrick P. C. Lee, Wenjing Lou. A Hybrid Cloud Approach for Secure Authorized Deduplication. IEEE Transactions On Parallel And Distributed System Vol: Pp No:99 (2014).
- [6] Ateniese, G., Burns, R., Curtmola, R., Herring, J., Kissner, L., Peterson, Z., et al. (2007) Provable data possession at untrusted stores. In ACM CCS 2007, ACM, 598–609
- [7] Shacham, H., Waters, B. (2008). Compact proofs of retrievability. ASIACRYPT 2008 (Vol. 5350, pp. 90–107). Berlin/ Heidelberg: Springer
- [8] Ateniese, G., Pietro, R. D., Mancini, L. V., Tsudik, G. (2008). Scalable and efficient provable data possession. In SecureComm'08 (pp. 1–10)
- [9] Erway, C., Kupcu, A., Papamanthou, C., Tamassia, R. (2009). Dynamic provable data possession. In ACM CCS'09 (pp. 213–222).
- [10] Wang, Q., Wang, C., Ren, K., Lou, W., Li, J. (2012). Enabling public audibility and data dynamics for storage security in cloud computing. IEEE Transactions on Parallel and Distributed Systems, 22(5), 847–859
- [11] R. Patil Rashmi, S. M. Sangve (2015) "Public auditing system: Improved remote data possession checking protocol for secure cloud storage", International Conference on Applied and Theoretical Computing and Communication Technology (iCATccT), 75-80.