Abstract
Cloud storage has become more popular due to their many advantages. To provide access everywhere, a cloud service provider maintains many replicas for each piece of data on geographically distributed servers. Using the replication technique in cloud it has one problem that is it is very costly to maintain strong consistency on a large scale. Here a Consistency as a Service (CaaS) model is presented, which consists of a large data cloud and audit service. CaaS model consists of a data cloud which is maintained by a CSP (Cloud Service Providers) and audit service to verify whether the data cloud provides the level of consistency or not. There is a two-level auditing architecture, which requires a secured synchronized clock in the cloud. Algorithms are designed to express the problems. Finally, a heuristic auditing strategy (HAS) is created to find as many violations as possible.

References

- D. Bermbach and S. Tai, "Eventual consistency: how soon is eventual?" in Proc. 2011 MW4SOC.
- Douglas B. Terry, Vijayan Prabhakaran, Ramakrishna Kotla, Mahesh Balakrishnan, Marcos K. Aguilera, Hussam Abu-Libdeh, "Consistency-Based Service Level Agreements for Cloud Storage ";
- W. Vogels, "Data access patterns in the Amazon. com technology platform,"
Improving Consistency in Cloud by using Audit Cloud Service

in Proc. 2007 VLDB.

Index Terms

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Keywords
Cloud Storage  Consistency As A Service (caas)  Two-level Auditing And Heuristic Auditing Strategy.