Abstract

Cloud computing is a widely accepted technology that delivers many services over internet. The services include storage, easy access from anywhere at any time and also minimum device memory utility. In order to provide security and privacy of data many authorization schemes are used. OAuth scheme is one of the most commonly used authorization scheme. But it cannot be used in the case of heterogeneous clouds. To overcome this difficulty, Fuzzy Authorization scheme was proposed. In this scheme, modified Ciphertext Policy-Attribute Based Encryption (CP-ABE) and OAuth schemes are used. This scheme provides the facility for an application that is present in one cloud party to access data that is stored in another cloud party. Fuzzy Authorization is a reading authorization scheme and data modification can only be done by data owner. When a data is modified, the application's right of accessing the data will be automatically canceled. By making use of Linear Secret Sharing Scheme and GRS code this scheme has become more scalable and flexible. The implementation is done by using simulator OMNET++4.2.2 and cryptographic part is done by using Pairing Based Cryptographic(PBC) library. Simulation results shows that this scheme is more secure and
efficient. Different access control schemes are compared in this paper based on many parameters.

References

2. Shasha Zhu and Guang Gong, "Fuzzy Authorization for Cloud Storage".

Index Terms

Computer Science Fuzzy Systems
Keywords

Ciphertext Policy-Attribute based Encryption, Fuzzy Authorization, Cloud Storage Provider, Application Service Provider