Attribute Based storage supporting secure Deduplication of Encrypted data in cloud

Abstract:

Attribute-based encryption (ABE) has been widely used in cloud computing where data providers outsource their encrypted data to the cloud and can share the data with users possessing specified credentials. On the other hand, deduplication is an important technique to save the storage space and network bandwidth, which eliminates duplicate copies of identical data.

Existing system:

Cloud computing greatly facilitates data providers who want to outsource their data to the cloud without disclosing their sensitive data to external parties and would like users with certain credentials to be able to access the data .This requires data to be stored in encrypted forms with access control policies such that no one except users with attributes (or credentials) of specific forms can decrypt the encrypted data. An encryption technique that meets this requirement is called attribute-based encryption (ABE). However, the standard ABE system fails to achieve secure deduplication, which is a technique to save storage space and network bandwidth by eliminating redundant copies of the encrypted data stored in the cloud.

Disadvantages:

1. Data will be encrypted before it is stored in the cloud so that for decryption and data search time consuming will be there.

2. For the decryption and search some process needed which increases the cost.

3. In some cases it is not sufficient for the security of the data

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Proposed System:

we presented a novel approach to realize an attribute-based storage system supporting secure deduplication. Our storage system is built under a hybrid cloud architecture, where a private cloud manipulates the computation and a public cloud manages the storage. The private cloud is provided with a trapdoor key associated with the corresponding ciphertext, with which it can transfer the ciphertext over one access policy into ciphertexts of the same plaintext under any other access policies without being aware of the underlying plaintext. After receiving a storage request, the private cloud first checks the validity of the uploaded item through the attached proof.

Advantages:

1. It provides hybrid cloud architecture which manages the space so that storage space will be saved
2. Improved security**.**

SYSTEM REQUIREMENTS

H/W System Configuration:-

- Processor - Pentium –III
- RAM - 256 MB (min)
- Hard Disk - 20 GB
- Key Board - Standard Windows Keyboard
- Mouse - Two or Three Button Mouse
- Monitor - SVGA

S/W System Configuration:-

- Operating System : Windows95/98/2000/XP
- Application Server : Tomcat5.0/6.X
- Front End : HTML, Jsp
- Scripts : JavaScript.

- Server side Script : Java Server Pages.
- Database : MySQL 5.0
- Database Connectivity : JDBC