**Paper No: PU-SOE-CSE-11**

**Ibadedup-Image Based Authentication and Deduplication Scheme in Cloud User Group**

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**Abstract**

In recent times the cloud storage services are widely used for storage and processing. This has made the increasing demand for the mechanism or methodology which will provide the solution for reducing the use of redundant data, to achieve better space and bandwidth requirements of a storage service. Cloud computing enables all the remote workstations are light weighted where the operating system, services and user data are centralized in cloud servers and are shared by other users of the cloud. This sort of data sharing causes collusion attacks on an unsecure environment. Thus a secure protection scheme is needed to encrypt the private information. This may prove to be a problem because the distribution and storage of a key is difficult in a cloud with dynamic users. The proposed system provides distribution of key without the need for a secure communication channel using a group manager. This system also performs data De-duplication and prevents unauthorized access to a file using graphical passwords. Here the user selects an image to authenticate his identity. This image is split into 16 parts by the administrator; these 16 parts are generated randomly using a pseudo random generator technique. Then, the administrator holds onto 4 parts of the entire image to authenticate the user at time of login using Attribute Based Encryption. This helps the administrator authenticate the user and also prevents a revoked user from gaining access to a file. The Group Manager ensures the privacy of the files shared within a group by updating the user information to the database and by using RC6block cipher technique to encrypt the documents at time of storage. Thus when the user needs to download a file from a group a request is sent to the group manager and the decrypted file is then downloaded.

**Keywords:**

Data deduplication, Image Based Authentication, Key distribution, Privacy-preserving.

**Publication Details:**

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| --- | --- | --- | --- | --- | --- |
| **Journal Name** | **Vol.** | **Month & Year**  | **Page No.** | **Publisher** | **Scimago Ranking** |
| International Journal of Recent Technology And Engg | 8 |  Nov. 2019   | 12233-12244 | Blue Eyes Intelligence Engineering & Sciences Publication | Q4 |