**A Secure Client Side DeduplicationScheme in Cloud Storage Environments**

**ABSTRACT**

Recent years have witnessed the trend of leveraging cloud-based services for large scale content storage, processing, and distribution. Security and privacy are amongtop concerns for the public cloud environments. Towards thesesecurity challenges, we propose and implement, on Open Stack Swift, a new client-side deduplication scheme for securely storing and sharing outsourced data via the public cloud.The originality of our proposal is twofold. First, it ensuresbetter confidentiality towards unauthorized users. That is,every client computes a per data key to encrypt the data that he intends to store in the cloud. As such, the data access ismanaged by the data owner. Second, by integrating accessrights in metadata file, an authorized user can decipher an encrypted file only with his private key.