# RFDA: Reliable Framework for Data Administration Based on Split-Merge Policy

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## Abstract

Emerging technologies in cloud environment have not only increased its use but also posed some severe issues. These issues can cause considerable harm not only to data storage but also to the large amount of data in distributed file structure which are being used in collaborative sharing. The data sharing technique in the cloud is prone to many flaws and is easily attacked. The conventional cryptographic mechanism is not robust enough to provide a secure authentication. In this paper, we overcome this issue with our proposed Reliable Framework for Data Administration (RFDA) using split-merge policy, developed to enhance data security. The proposed RFDA performs splitting of data in a unique manner using 128 AES encryption key. Different slots of the encrypted key are placed in different places of rack servers of different cloud zones. The effectiveness and efficiency of the proposed system are analyzed using comparative analysis from which it is seen that the proposed system has outperformed the existing and conventional security standard.

## Keywords

**Author Keywords:** AES encryption; authentication; cloud storage; cloud server; data security

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