

## **72. ENSURING DATA INTEGRITY AND SECURITY WITH ERASURE CODE AND TPA MANAGEMENT SYSTEM**

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Cloud computing is an emerging technology which has considerable potential as an alternative process for traditional silo computing. One can deploy applications more speedily across shared server storage resource pools than is possible with conventional enterprise solutions. In the proposed system using Functional Minimum-Storage Regenerating-Data Integrity Protection (FMSRDIP) codes for allow clients to remotely verify the integrity of random subsets of long term archival data under multi server setting. FMSR-DIP codes perform basic file operations Upload, Download, Check and Repair for 1. Read data from the other surviving servers, 2. Reconstruct the corrupted data of the failed server, and 3. Write the reconstructed data to a new server using NC Cloud. FMSR-DIP codes preserve fault tolerance and repair traffic saving. The main concept of this Project is Data is encrypted, splitted and stored in separate Servers. After Data is splitted, Parity Bit is added to that and stored in replica Servers also for Backup. We also the Data into Hash format using SHA 256 Algorithm. TPA is used to verify the Data Integrity. We use Erasure Code implementation for Code Reconstruction Technique. Index Terms - Multi-clouds, Regenerating codes, Network coding, Fault Tolerance, FMSR codes.

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