SECURE CLOUD STORAGE WITH EFFICIENT DATA RECOVERY MECHANISM

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Abstract

Users can remotely store their data in cloud storage without having physical possession of the outsourced data. This arises security risks in correctness of the data in cloud storage. In distributed storage, data is divided into blocks and these blocks are kept at different servers. In this paper we propose a data recovery mechanism with error detection with which original data file can be retrieved even if any one of the data blocks lost. e.g. if data is divided into three blocks and any one of these blocks is lost then the original data can be retrieved from remaining two blocks which achieves data integrity and availability. This system is implemented as an extension to the problem investigated in [1], which supports dynamic operations on outsourced data such as block modification and deletion. Analysis shows that proposed system is more efficient against Byzantine failure, database attack and server crash events.

Keywords : cloud computing, Distributed Storage, error detection, data recovery