Robust and Dedicated Hybrid Cloud Approach for Secure Authorized Deduplication

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Abstract : Data deduplication is one of important data compression techniques for eliminating duplicate copies of repeating data, and has been widely used in cloud storage to reduce the amount of storage space and save bandwidth. In this process, duplicate data is expunged, leaving only one copy means single instance of the data to be accumulated. Though, indexing of each and every data is still maintained. Data deduplication is an approach for minimizing the part of storage space an organization required to retain its data. In most of the company, the storage systems carry identical copies of numerous pieces of data. Deduplication terminates these additional copies by saving just one copy of the data and exchanging the other copies with pointers that assist back to the primary copy. To ignore this duplication of the data and to preserve the confidentiality in the cloud here we are applying the concept of hybrid nature of cloud. A hybrid cloud is a fusion of minimally one public and private cloud. As a proof of concept, we implement a java code which provides security as well as removes all types of duplicated data from the cloud.

Keywords: confidentiality, deduplication, data compression, hybridity of cloud

Conference Title: ICECECE 2015: International Conference on Electrical, Computer, Electronics and Communication

ngineering

Conference Location: Paris, France Conference Dates: November 19-20, 2015