

RELATIVITY ON THE REDUPLICATION OF DATA STORED IN THE DISTRIBUTED CLOUD COMPUTING SYSTEM

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ABSTRACT

Reduplication storage space and download bandwidth to reduce duplicate copies of the data used in cloud storage, a technology to eliminate. However, the file is owned by a large number of users, even if there is only one copy of each file stored in the cloud. As a result, while reducing reliability, reduplication storage systems using the most advanced. Moreover, the confidentiality of sensitive information challenges arise when the outsourcing by cloud users. Aimed at addressing the security challenges mentioned above, this paper is the first attempt to formalize the concept of reliable duplicate information makes the distribution of extinction. We have a higher degree of reliability with a new distribution system Reduplication, which suggest that the data distribution across the multiple servers in the cloud. Using this instead of the previous system of convergent encryption, hiding in a distributed storage system through the introduction of deterministic data privacy and security requirements for a sign of consistency is achieved, the abolition of duplicate data. We have proposed a security model for Reduplication system safety analysis set out in the definition of the terms of the safe. As proof of concept, we implement the proposed regulation and the overhead incurred by the limited evidence that the environment is very realistic.

Keywords: *Reduplication, Reliability, Distributed Storage System, Secret Sharing, Encryption and Decryption.*

I.INTRODUCTION

Various types of data stored in the cloud for each user, and to ensure the long-term security of their data continuously, and the problem becomes more challenging to verify the data stored in the cloud. Cloud computing is not only a third-party data warehouse. Continued insertion or deletion or modification of data stored in the cloud, can be handled. or rearrange the order, including adding updated by users, and cloud storage services, today one of the most important challenges of the constantly growing volume of data that According to the IDC report abuse analysis, two basic approaches to the wild in 2020 to 40 trillion giga-bytes of data are expected to suffer the publication of a critical size. With the growing number of users that will generate a huge number, because firstly, it is not effective. In particular so as to restore the latest copy of the information, each user copies the data encrypted key outsourcing partner to encrypt each block must be stopped. Despite the fact

that several users can share the same information to other users can access their files, so it should be in a range of convergent what. That dedication has its own master key to protect the needs of each user, the second, the basic approach, unreliable. If it is compromised by attackers, and then it will not leak the user information; If you lose the master key by mistake, then the user will not be able to retrieve the data. We Dekey, and the user does not need to conduct themselves in a sign of the new building, but safely across multiple servers instead of the recommended distribution of shares. The use of the shield system and the limited carrying Dekey overhead realistic environments and cloud storage on either side of the main converging Dekey We user management guarantees efficient and reliable, which Dekey a new building, offers.

What is the secret of the elimination of duplicate data De-key convergent convergent effective and reliable management of new construction offer. Dekey file level deduplication support for both. Dekey safety analysis shows that the proposed security model set out in the definition in terms of the safe. The key to control of the limited number of servers in particular, are still safe Dekey. Key management can adapt to different levels of reliability and confidentiality of secret sharing system used to implement

Dekey. Our assessment shows that regularly carries De-key realistic environments and cloud operations, upload / download limit government spending. The advantages of placing decoys in a file system are threefold:

- (1) The detection of masquerade activity.
- (2) The confusion of the attacker and the additional costs incurred to distinguish real from bogus information, and
- (3) The deterrence effect which, although hard to measure, plays a significant role in preventing masquerade activity by risk-averse attackers.

II. RELATED WORK

Data deduplication is used to remove data replication. De-duplication technology is a very interesting strategy. Reliability stable and consistent results. They may be more reliable than the text does not consider deduplication, encryption on the files only. It is known that the text is encrypted or encoded information. In 1997, M Bellare security concept and focus [8] on the border of the symmetric encryption security framework. This safety analysis and to restrict them to a different idea of a good bounce. A block cipher block cipher encryption methods they use in order to counter offer. Those with two goals. This study is the first security for symmetric encryption, asymmetric encryption device and the real reform is to provide security analysis. Convergent encryption, deduplication [10] provides the information security. Bellare encrypted message explaining the system to lock and secure storage outsourcing services [8] to the applicable. It uses encryption to protect the confidentiality of information. Lee et al block-level deduplication and multiple servers go down in [10], some important management issue, there. Bellare and others. The letter shown how to protect personal information by converting messages can be unpredictable, can not be predicted [8]. In their system, a third party known as one of the main server. In order to check the duplicate of file marker, it is going to produce. Stanik and others. To achieve better storage efficiency and data security outsourcing [9]. They offer all types of differential data security. D Harnik remote storage system [5] show proof of ownership. This leakage of information leakage and client-side deduplication can help save time, the attack is identified.

III. PROBLEM DEFINITION

This section of the system model and the security threat is determined. Users of these two entities in the system and cloud storage service provider (S-CSP) involved, including deduplication, to be. This information is to collect data to save bandwidth and storage space to download the client-side and server-side deduplication in our system to support both deduplication.

- User. The next time the user of the data storage and access to the S-CSP entity that wants to outsource. Deduplication storage systems support, users can download data only unique but also saves bandwidth for downloading, do not download any duplicate information. Moreover, it provides a higher degree of reliability of the system, users will be prompted by the error.
- S-CSP. S-CSP entity that provides services for users of the data storage outsourcing. Deduplication System, users of the same content store, shop S-CSP is the only copy of the file and only have to keep the unique information.

There deduplication technology, on the other hand, the server can reduce storage costs and to save bandwidth for users to download side side. Privacy and data collection errors, and we support S- quorum to consider the project for the community, each being a separate entity. Community support S- user data distribution across multiple projects.

We process each file and block level data deduplication on us. In particular, to download a file, a user file level for the first time in a duplicate check will be performed. A duplicate file, then it will be like all the blocks as well as, otherwise, the user chooses the duplicate block level and is unique in its kind to identify the blocks to be downloaded. Each copy of the data (ie file or block) is associated with duplicate check mark. The S-CSP and tag all the data will be stored.

IV. SYSTEM PRELIMINARIES

SECURE DEDUPLICATION

Data compression technology to eliminate duplicate copies of data redundancy in case of cancellation in duplicate data. Related and synonymous (data compression) and one instance (data) storage is somewhat intelligent. This technology is used to improve the use and storage units, and must be sent to the number of bytes that can be applied to reduce the data transfer network. De-duplication, data, or byte patterns, a unique piece in the process, are identified and stored during the analysis process. A small piece of unnecessary signal is stored in a piece, and when a match occurs, the saved version of the continuation of analysis than the other pieces, with, was replaced. The same pattern can occur in tens, hundreds, even thousands of times bytes (depending on the size and speed of the game and the pieces), and greatly reduces the amount of data that must be stored or transferred may be given. LZ77 and LZ78 Deduplication such as a standard file compression tool, as opposed to running. This tool identifies individual file repeated short substrings, and the intent of the existing store large amounts of data and to lose a large part of the data replication rule, however

- such as a large portion of the file or files - so, identical, which is not only to save a copy of it. In addition to this version of a file can be compressed by pressing technique. For example, a typical e-mail system, the same MB (megabyte) file attachments 100 may be an example. Each time the e-mail platform supports up

to 100 MB of storage space for all of the 100 cases in which the benefits are preserved.

It protects against misuse of the data to the user. We launch attacks against insider malicious misinformation, false information and sensitive customer data from de-coys worthless real use of this technology to prevent them from discrimination, then, serves two purposes:

- (1) Validating whether data access is authorized when ab-normal information access is detected, and
- (2) Confusing the attacker with bogus information.

V. CONCLUSIONS

We proposed the distributed deduplication systems to improve the reliability of data while achieving the confidentiality of the users' outsourced data without an encryption mechanism. Four constructions were proposed to support file-level and fine-grained block-level data deduplication. The security of tag consistency and integrity were achieved. We implemented our deduplication systems using the Ramp secret sharing scheme and demonstrated that it incurs small encoding/decoding overhead compared to the network transmission overhead in regular upload/download operations.

B. USER BEHAVIOR PROFILING

We have the unusual access patterns of user access to data in the cloud cloud profiling information how, when, and how the user access model that can be applied to monitor a well-known techniques. Naturally the size of the data included in this type of structure. The average user's access to information on an ongoing basis. A natural user behavior-based safety and general fraud detection application will use this method to determine whether, "in this kind of test, and how to read and how often to documents. We provide strong evidence of irregularities in the research, and thus The detector will improve the accuracy and the link to the file-based user search behavior anomalies Trap deviation from the baseline shows that in some exceptional viewing.

C. DECOY DOCUMENTS

We are using technology to trap offensive to secure cloud data suggest different approaches. We unusual cloud patterns and access to information, access to the data published evaluations. We trap large amounts of data to the attacker's attack by the incorrect information.

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