# Dynamic Outsourced Auditing Services For Cloud Storage Based On Batch-leaves-authenticated Merkle Hash Tree

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# ABSTRACT

- Cloud computing encourages users to outsource their data to cloud storage. Data outsourcing means that users lose physical autonomy on their own data, which makes remote data integrity verification become a critical challenge for potential cloud users.

- To free user from the burden incurred by frequent integrity verifications, Third Party Auditor (TPA) is introduced to perform verifications on behalf of user for data integrity assurance.

- However, existing public auditing schemes rely on the assumption that TPA is trusted, thus these schemes cannot be directly extended to support the outsourced auditing model, .

- where TPA might be dishonest and any two of the three involved entities (i.e. user, TPA, and cloud service provider) might be in collusion. In this paper, we propose a dynamic outsourced auditing scheme which cannot only protect against any dishonest entity and collision, but also support verifiabledynamic updates tooutsourced data. We present a new approach, based on batch-leaves-authenticated Merkle Hash Tree (MHT), to batch-verify multiple leaf nodes and their own indexes all together, which is more appropriate for the dynamic outsourced auditing system than traditional MHT-based dynamism approaches that can only verify many leaf nodes one by one.

# EXISTING SYSTEM

- The first outsourced auditing scheme, called Fortress , was proposed to protect against any dishonest entity and against collusion among any two entities. However, Fortress can only support static data, which is a limitation  in practice. Dynamic updates  are crucial in many practical cloud storage applications, where user expects  that outsourced data can be remotely updated, by mod-ifying, inserting, or deleting the target data block in  cloud, while  maintaining  the  normal  operation  of  the auditing  protocols.  The  key  to  dynamic  updates  is  the  appropriate authenticated data structure. Although existing auditing  schemes have proposed  various  authenticated data  structure for dynamism

# DISADVANTAGES

- Many potential cloud users have yet to join the cloud, and many are for the most part putting only their less sensi-tive data in the cloud.

- Data outsourcing means that users lose physical autonomy on their own data

# PROPOSED SYSTEM

- We present a newly designed authenticated data structure—Batch-Leaves-Authenticated Merkle Hash Tree (BLA-MHT)—along with the corresponding algorithms to batch-authenticate multiple verified leaf nodes and their own indexes all together, which is different fromthe straightforward way adoptedin previous MHT-based schemes that can only authenticate all challenged leaf nodes one by one.

- 2) Based on the BLA-MHT and its algorithms, we pro-pose the DOA scheme that protects against any dishonest entity and collision, and simultaneously avoids the re-source-intensive design of downloading entire out-sourced data from CSP to TPA asin . In addition, by means of above algorithms

# ADVANTAGES

- How to defend against a dishonest TPA is an important issue raised by recent research.

- Stronger security model aims to protect against any dishonest entity and collusion.

# HARDWARE REQUIREMENTS

- System : Pentium IV 2.4 GHz.

- Hard Disk : 40 GB.

- Floppy Drive : 1.44 Mb.

- Monitor : 15 VGA Colour.

- Mouse : Logitech.

- Ram : 512 Mb.

# SOFTWARE REQUIREMENTS

- Operating system        : Windows XP/7.

- Coding Language       : ASP.net, C#.net /java

# CONCLUSION

- In the context of cloud storage and remote dataauditing, how to defend against a dishonest TPA is an important issue raised by recent research. Compared totraditional public auditing schemes, outsourced auditing scheme under a stronger security model aims to protect against any dishonest entity and collusion. In this paper, we propose a new authenticated data structure that is based on Merkle Hash Treeand referred to as BLA-MHT. By supporting the batch-verifications upon multiple leaf nodes, this novel data structure is more efficient than existing MHT-based approaches, and thus is appropriate for the dynamic outsourced auditing system. Based on BLA-MHT, we also propose a new scheme to achieve both dynamic updates and outsourced auditing.Com-pared to the state ofthe

# REFERENECE

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