# An Efficient Secured Public Auditing Protocol with Novel Dynamic Structure For Cloud Data

Selvam R, Assistant Professor Department of Computer Science and Engineering
Dercious M, Student of Computer Science and Engineering
SanjaiMonish S, Student of Computer Science and Engineering
Vignesh K, Student of Computer Science and Engineering
St. Joseph College of Engineering, Sriperumbudur, Chennai.

## Abstract:

Data sharing can be achieved with sensitive information hiding in remote data integrity auditing, and propose a new concept called identity based shared data integrity auditing with sensitive information hiding for secure cloud storage. Initially every data would be outsourced to the cloud only after authorized or activated by the proxy. The key would be generated to the file randomly by the key generation center. The transaction details such as key mismatch, file upload and download, hacking details would be shown to the proxy and cloud server. The automatically file would be recovered by the user even if hackers access or tamper the file. The main motive is to ensure that when the cloud properly stores the users sanitized data, the proof it generates can pass the verification of the third party auditor.

## Introduction:

A literature review surveys scholarly articles, books, dissertations, conference proceedings and other resources which are relevant to a particular issue, area of research, ortheory and provides context for a dissertation by identifying past research. Research tells a story and the existing literature helps us identify where we are in the story currently.

It is up to those writing a dissertation to continue that story with new research and new perspectives but they must first be familiar with the story before they can move forward. A literature survey or literature review in a project report is that section which shows the various analyzes and research made in the field of your interest and the results already published, taking into account the various parameters of the project and the extent of the project. It is the most important part of your report as it gives you a direction in the area of your research.

A literature review is a text of a scholarly paper, which includes the current knowledge including substantive findings, as well as theoretical and methodological contributions to a particular topic. Literature reviews

## Objectives:

A potential method of solving this problem is to encrypt the whole shared file before sending it to the cloud, and then generate the signatures used to verify the integrity of this encrypted file, finally upload this encrypted file and its corresponding signatures to

the cloud. This method can realize the sensitive information hiding since only the data owner can decrypt this file.

## Literature Survey:

Public Integrity Auditing for Dynamic Data Sharing withMulti-User ModificationAUTHOR: Jiawei Yuan, Shucheng Yu, Member, IEEEIn past years, the rapid development of cloud storage services makes it easier than ever for cloud users to share data with each other. To ensure users' confidence of the integrity of their shared data on cloud, a number of techniques have been proposed for data integrity auditing with focuses on various practical features, e.g., the support of dynamic data, public integrity auditing, low communication/computational audit cost, and low storage overhead.

Identity-Based Data Outsourcing with Comprehensive Auditing inCloudsWenchang Shi Robert H. Deng, Fellow, IEEE, JiankunHuAUTHOR: Yujue Wang, Qianhong Wu, Member, IEEE, Bo Qin,Cloud storage system provides facilitative file storage and sharing services for distributed clients. To address integrity, controllable out sourcing and origin auditing concerns on outsourced files, we propose an identity-based data outsourcing (IBDO) scheme equipped with desirable features advantageous over existing proposals in securing outsourced data. First, ourIBDO scheme allows a user to authorize dedicated proxies to upload data to the cloud storage server on her behalf, e.g., a company may authorize some employees to upload files to the company's cloud account in a controlled way.

Auditing Anti-Malware Tools by Evolving Android Malware andDynamic Loading TechniqueAUTHOR: YinxingXue, GuozhuMeng, Yang Liu, Tian HuatTan,Hongxu Chen, Jun Sun, and JieZhangAlthough a previous paper shows that existing antimalware tools (AMTs)may have high detection rate, the report is based on existing malware and thus it does not imply that AMTs can effectively deal with future malware. It is desirable to have an alternative way of auditing AMTs. In our previous paper,we used malware samples from android malware collection GENOME to summarize a malware meta-model for modularizing the common attack behaviors and evasion techniques in reusable features. We then combine different features with an evolutionary algorithm, in which way we evolve malware for variants. Previous results have shown that the existing AMTs only exhibit detection rate of 20%–30% for 10 000 evolved malware variants.

## System Design:

### File Uploading And Activation:

The data owner firstly needs to generate signatures for data blocks before uploading them to the cloud. These signatures are used to prove the cloud truly possesses these data blocks in the phase of integrity auditing. And then the data owner uploads these data blocks along with their corresponding signatures to the cloud. The data stored in the cloud is often shared across multiple users in many cloud storage applications. The data owner activates the file to

check whether the uploaded file is appropriate or not then the Proxy also activates the file to check the file is Good.

**Data Integrity Auditing:**

Data integrity auditing scheme that realizes data sharing with sensitive information hiding. However, the data stored in the cloud might be corrupted or lost. Data integrity auditing on the condition that the sensitive information of shared data is protected.

**Generating Key Signature:**

A potential method of solving this problem is to encrypt the whole shared file before sending it to the cloud, and then generate the signatures used to verify the integrity of this encrypted file, finally upload this encrypted file and its corresponding signatures to the cloud. This method can realize the sensitive information hiding since only the data owner can decrypt this file. However, it will make the whole shared file unable to be used by others.

**FILE SECURITY AND RECOVERY:**

If a file has been partially overwritten or otherwise compromised, the chances of any usable recovery are low, even with the best recovery software in the existing system. In our proposed work, we can easily recover the file while deleted files are inaccessible and are in danger of being overwritten, they can often be recovered**.**

## Workflow Diagram

## Figure 1

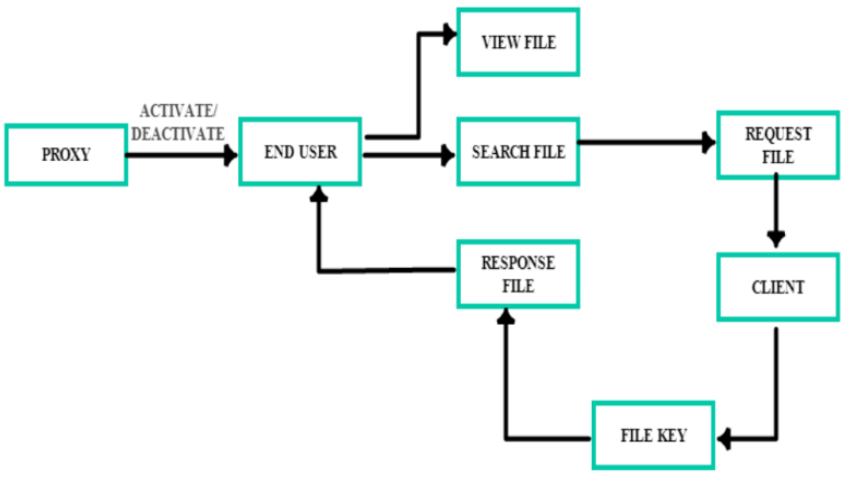
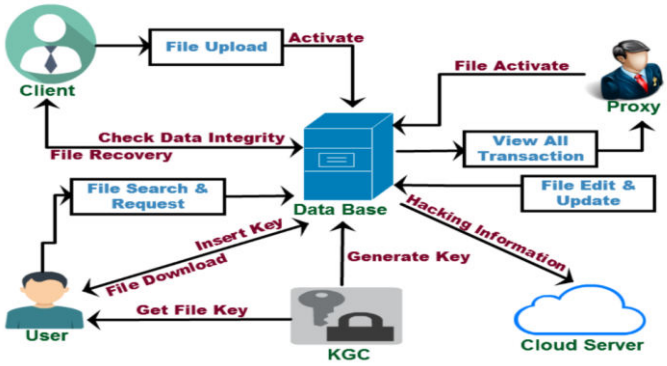



Figure 2

## Architecture Diagram:




**Implementation:**

**AhoCorasick Algorithm**

**STEPS:**

- ➢ Gets the original file and hacked modified file
- ➢ Gets the encrypted data from original file
- ➢ The encrypted data will be decrypted.
- ➢ The decrypted original file will be compared to the hacked modified file
- ➢ If any changes in the files it will automatically recover.

**OUTPUT DESIGN:**

The computer output is the most important and direct source of information to the user. Efficient and intelligible output design improves the system's relationship with the user and helps in decision making.

Output design was studied going actively during the study phase. The objective of the output design is to define the contents and format of all documents and reports in an attractive and useful format.

**File Download**


## Conclusion:

We proposed a character-based information respectability reviewing plan for secure distributed storage, which bolsters information offering to delicate data covering up. In our plan, the record put away in the cloud can be shared and utilized by others depending on the prerequisite that the touchy data of the document is ensured. Moreover, the remote information honesty examination is still ready to be executed. The security evidence and the exploratory investigation exhibit that the proposed plot accomplishes attractive security and productivity.

## Future Enhancement:

- ➢ In this paper, the data owner independently uploads the data to the Cloud and it is difficult to monitor the data and check the process.
- ➢ This can be achieved by introducing a Proxy component to check for the integrity. This is an added advantage to the data owner that he need not stay for integrity checking.
- ➢ The data owner provides a key to the proxy server using that key proxy is responsible for checking the data. This should be considered as the future work to overcome this drawback.

**Mr.SELVAM M.E.** Assistant Professor Department of Computer Science and Engineering at St. Joseph College of Engineering, Sriperumbudur, Chennai, Tamil Nadu. He has completed his M.E in Kumaraguru college of technology.

**Mr. DERCIOUS M** Student of Computer Science and Engineering in St. Joseph College of Engineering, Sriperumbudur, Chennai. I have attended many workshops and seminars in data science.

**Mr.SANJAI MONISH S** Student of Computer Science and Engineering in St. Joseph College of Engineering, Sriperumbudur, Chennai. I had attended many international conferences.

**Mr.VIGNESH K** Student of Computer Science and Engineering in St.Joseph College of Engineering, Sriperumbudur, Chennai. I had attended many seminars in c programming.