

CLOUD DATA SECURITY USING TIME DELETION ALGORITHM

Prof. Bharat Dhak¹, Sakshi Kale², Neha Bhilkar³, Shivani Gaurihar⁴ and Pranita Dhengre⁵

¹Prof. Bharat Dhak, Assistant Professor, Department of Computer Science and Engineering, Priyadarshini J.L College of Engineering, Maharashtra, India.

²Sakshi Kale, Student, Department of Computer Science and Engineering, Priyadarshini J.L College of Engineering, Maharashtra, India.

³Neha Bhilkar, Student, Department of Computer Science and Engineering, Priyadarshini J.L College of Engineering, Maharashtra, India.

⁴Shivani Gaurihar, Student, Department of Computer Science and Engineering, Priyadarshini J.L College of Engineering, Maharashtra, India.

⁵Pranita Dhengre, Student, Department of Computer Science and Engineering, Priyadarshini J.L College of Engineering, Maharashtra, India.

ABSTRACT

Cloud computing is a type of computing that relies on sharing computing resources rather than having local servers or personal devices to handle applications. Cloud File Manager is a robust platform that offers unified access to all of your cloud files. Cloud File Manager offers easy file upload. You can upload multiple files from your computer to any cloud service. You can even download files that you would like to access. You can also create folders and upload required files to these folders within your cloud storage accounts. Time bomb in cloud provide high level of data security. Uploaded file can be delete with specific time limit. Manage all of your files regardless of cloud storage service from universal platform. Share content with full security and controls.

Keyword: Intelligent File Manager Time Bomb File Deletion, cloud storage, prototype implementation.

1. INTRODUCTION

While we can now outsource data backup to third-party cloud storage services so as to reduce data management costs, security concerns arise in terms of ensuring the privacy and integrity of outsourced data. We design Time Bomb, a practical, implementable, and readily deployable cloud storage system that focuses on protecting deleted data with policy-based file assured deletion. Time Bomb is built upon standard techniques, such that it deletes uploaded data files to guarantee their time privacy and integrity, and most importantly, assuredly deletes files to make them unrecoverable to anyone (including those who manage the cloud storage) upon revocations of file access policies. In particular, the design of Time Bomb is geared toward the objective that it acts as an overlay system that works seamlessly atop today's cloud storage services. To demonstrate this objective, we implement a working prototype of Time Bomb cloud storage services in the File Manager, and empirically show that Time Bomb provides policy-based file assured deletion with a minimal trade-off of performance overhead. Our work provides insights of how to incorporate value-added security features into current data outsourcing applications.

2. MODULES AND METHODS

- This project work on our cloud service.
 - Web services handle all user profiles. When user register then system will allocate the cloud space as per the admin allocated in system.
 - Then after login user uploads their files as per the time deletion timing.
 - Now Time deletion algorithm system will watch the time which is set by the user, when current time and user set time is matched then it will delete the file from all resources.
 - User can see all time their remaining space as a free space on the dashboard.
1. Client Application JSP and Html based web pages to use Intelligent File manager with Time Bomb Feature.
 2. Cloud Server Apache Tomcat based Server contains Servlets and Java classes to respond the client requests.
 3. Database Management Pure Java classes to manage database requests for Intelligent File Manager.
 4. Time Bomb Feature- A sub module of Cloud Server module with pure java classes to manage Time Bomb.
 5. Database with Tables- A database with some tables to manage all profiles and file storage to handle backend of application in MySQL Database Server.



Fig -1: Home Page

This figure shows the home page of our cloud secure system. It shows various options like home, login, registration, about us.

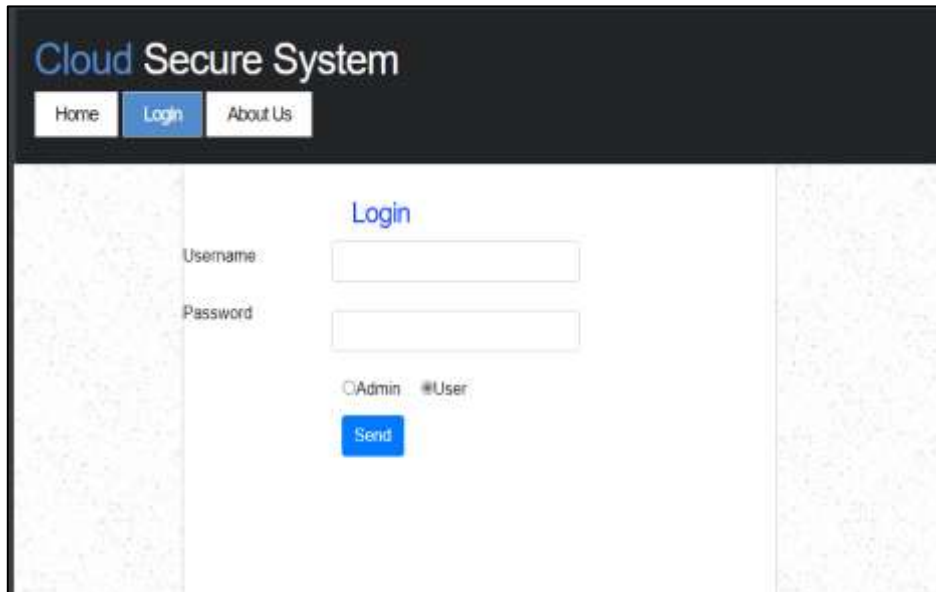


Fig -1.1: Login Page

This figure shows the login page of our cloud secure system. If the user is already registered then he/she can do login by using username and password.

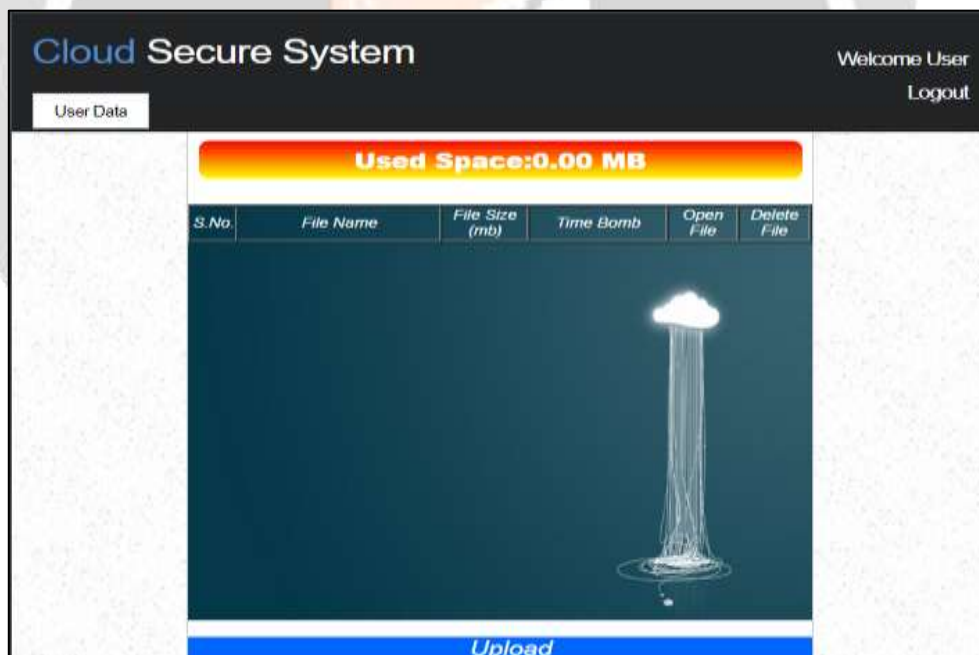


Fig -1.2: User data

This figure shows the user data. This page provides option to the user to upload the files. Also this page shows used space and the remaining space available for the users to upload the files.

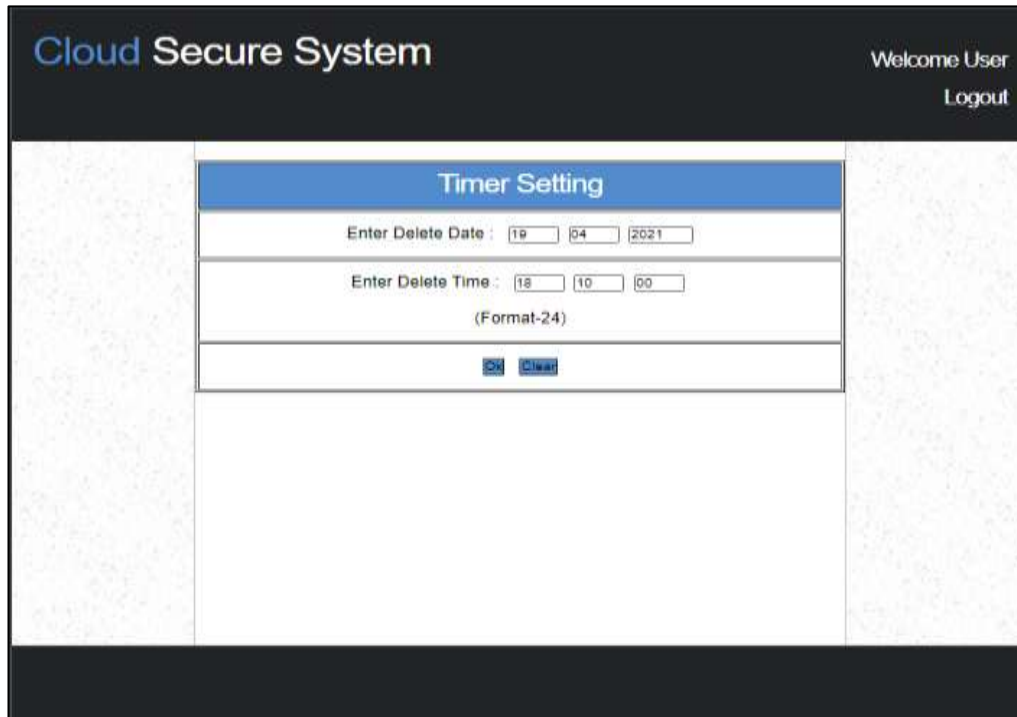


Fig -1.3: Timer Setting

This figure shows the page where user has to enter the time. Until which time he/she wants to upload the file. After that particular time the file will get automatically deleted.

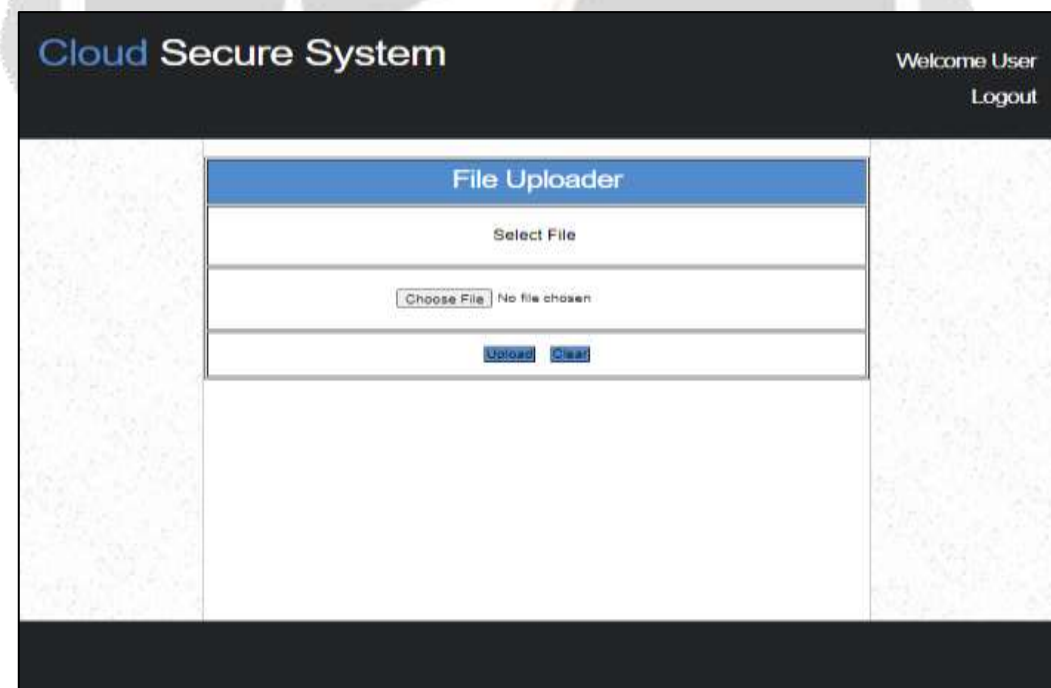


Fig -1.4: File Upload

This figure shows the page which gives the option to upload the file.

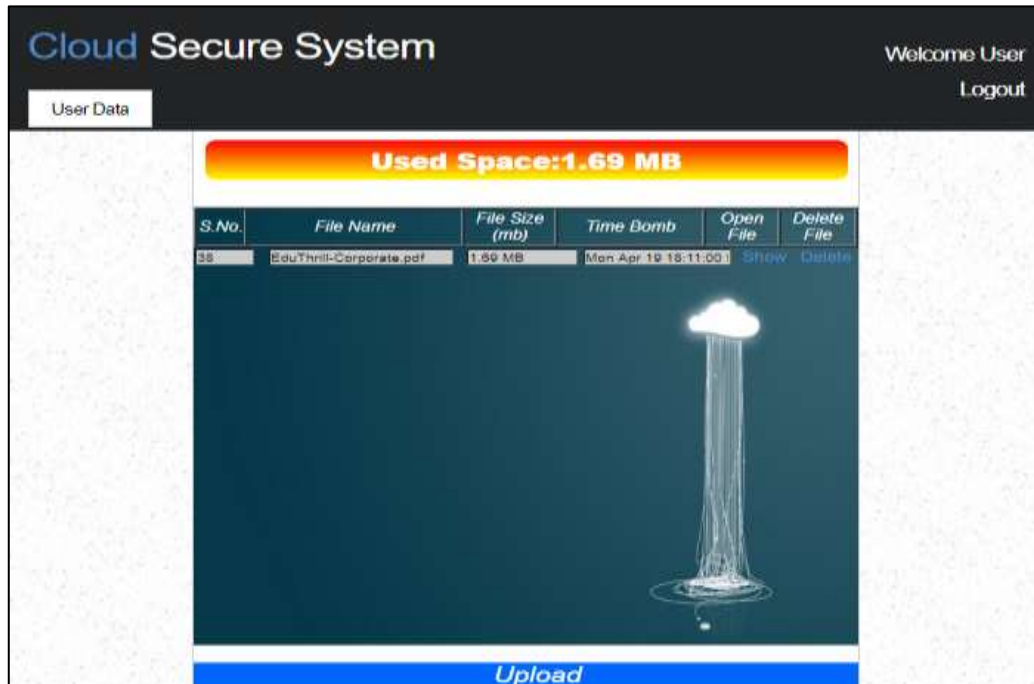


Fig -1.5: Show Details

This figure shows the user data. This page provides option to the user to upload the files. Also this page shows used space and the remaining space available for the users to upload the files.

3. BLOCK DIAGRAM

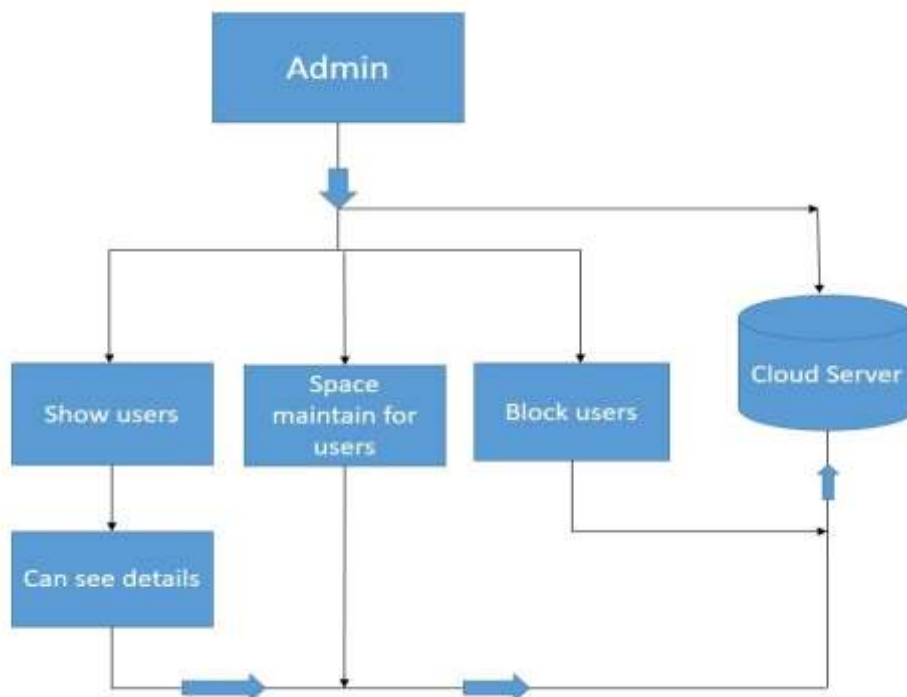


Fig -2: Admin panel

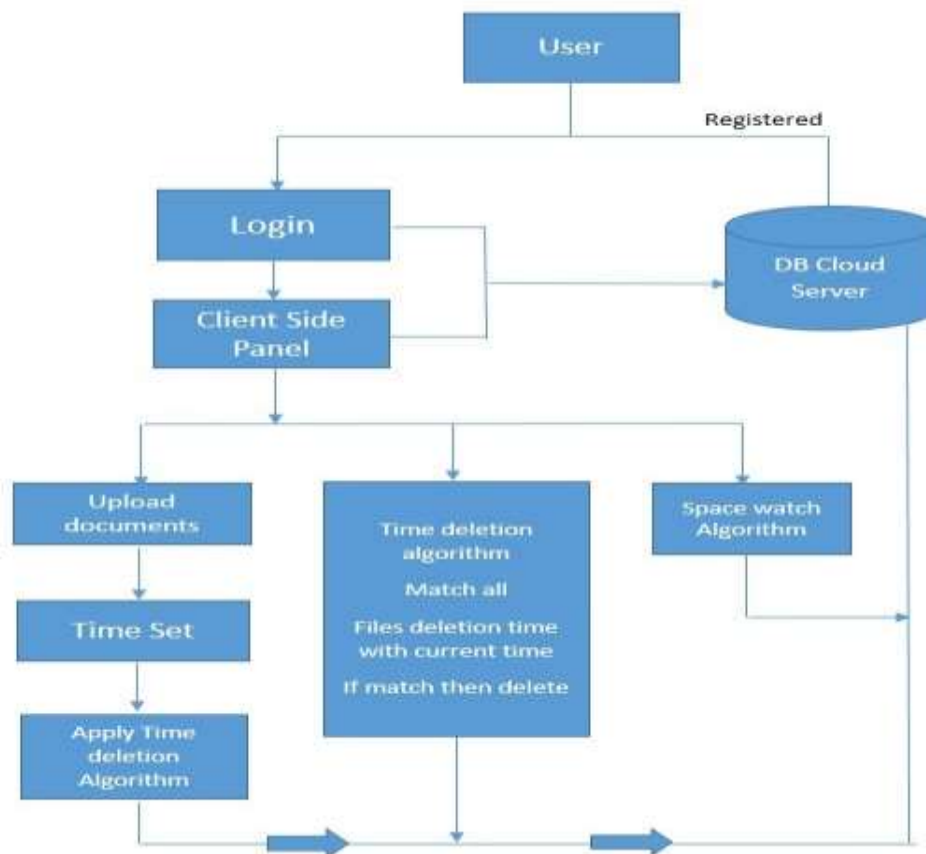


Fig -2.1: User panel

4. LITERATURE REVIEW

[A survey on service-oriented network virtualization toward convergence of networking and cloud computing \[1\]](#)

Abstract: The crucial role that networking plays in Cloud computing calls for a holistic vision that allows combined control, management, and optimization of both networking and computing resources in a Cloud environment, which leads to a convergence of networking Cloud computing represents a convergence of two major trends in information technology (a) IT efficiency, whereby the power of modern computers is utilized more efficiently through highly scalable hardware and software resources and (b) business agility, whereby IT can

[Addressing cloud computing security issues \[2\]](#)

Cloud Computing has resulted from the convergence of Grid Computing, Utility Computing and SaaS, and essentially represents the increasing trend towards the external deployment of IT resources, such as computational power, storage or business applications, and obtaining

[A survey of mobile cloud computing: architecture, applications, and approaches \[3\]](#)

cloud computing is viewed as the evolution and convergence of several independent computing trends such as Internet delivery, pay-as-you-go utility computing, elasticity, virtualization, grid computing, distributed computing, content outsourcing and Web 2.0

Cloud computing and information policy: Computing in a policy cloud [4]

The convergence of need and solution has produced the current conception of cloud computing, which promises to benefit all parties involved. Cloud providers gain an additional source of revenue and are able to commercialize their expertise in managing large data centres.

5. SYSTEM REQUIREMENTS

Processor is Intel Pentium or more. RAM is 4 GB (Minimum). Hard Disk is 200 GB (Minimum). Language is JAVA and IDE is NetBeans 8.X. Operating System is Microsoft Windows XP and upper versions. Web and database control application is XAMPP Control Panel 3.X MySQL frontend application is Phpmyadmin. Database Server is MYSQL. Web Server is Apache Tomcat 8.X.

Cloud Computing

Cloud computing is the on-demand availability of computer system resources, especially data storage (cloud storage) and computing powers, without direct active management by the user. The term is generally used to describe data centres available to many users over the internet. Large clouds, predominant today, often have functions distributed over multiple locations from central servers. If the connection to the user is relatively close, it may be designated an edge servers. Clouds may be limited to a single organization (enterprise clouds), or be available to multiple organizations (public cloud). Cloud computing relies on sharing of resources to achieve coherence and economies of sale.

6. APPLICATIONS AND ADVANTAGES

Application:

- a. Time bomb in cloud provides high level of data security.
- b. Uploaded file can be deleting with specific time limit.
- c. Manage all of your files regardless of cloud storage service from a universal platform.
- d. Share content with full security and controls.

Advantages:

User:

- Better utilization of cloud storage.
- Fraud Proof complete file deletion because user has complete authorization of account handling.
- No hidden files in user account storage complete utilization of given storage space.
- No admin interference on user accounts.

Admin:

- Admin has the facility to see list of accounts and profile but cannot see inside user storage.
- Admin can see storage used space and free space.

7. REFERENCES

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