Fog Computing: A Three Layer Architecture

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ABSTRACT: The development of cloud computing technology with the explosive growth of unstructured data, cloud storage technology is gaining more and more attention. And leave the clouds; and the cloud provider does not have the suggestions for storing data in the cloud, they said, one way or another, and globally. The protection of the secrecy of the arts relies for the most part on the fact that encryption technology. This can be for many reasons, not evidence, on the side of keeping the cloud secret. Our cloud-based, three-layer storage framework. The proposed framework may well take full advantage of cloud storage and protect secret information. Here we are using data to divide the hash-Solomon code algorithm is designed for different parts. The first part received the knowledge, if the knowledge is lacking, we have lost. In the real world from the human point of view of which we are the algorithms secure the data and use the knowledge and assurance of a bucket, and in accordance with what has been designed by the effective cause cannot be in the reason. In addition, according to the computational intelligence algorithm that can calculate distribution clouds, fog and machine, respectively Software as a Service (SaaS): the customer rejected their request in the accessible hosting environment via the network from various clients via application users. The customer was unable or unwilling to submit them to the controlling cloud infrastructure, especially with the exception of limited user-specific application configuration settings. Google Apps and Microsoft Office 365 for models with SaaS.

Keywords: Cloud Computing, Fog Computing, Algorithm, Three layer, Privacy

I. INTRODUCTION

In IT, cloud computing describes a type of IT outsourcing service, similar to how the supply of electricity is to be outsourced. Users can use only. You don't need to say, where the anxiety caused by electricity, how it occurred, or to transfer. For each day of the month, give it back. After cloud computing, the idea is similar to:The user can only use storage, computing power, is, or has been called upon with the development of the profession, for them is a work of the anguish of a freedom of those on the outside. Cloud computing is generally internet-based computing. The cloud is the Internet computer network diagram metaphor for how the Internet is depicted; how the removal of everythingis hiding in the Internet infrastructure. There is a way in which the related count developer are provided as a service, "allowing users of Internet access technology (" cloud ") services is not knowledge or power technologies after servers.

And that the clouds with the great mist can be perceived and means to count it and give itself to the works, which is increased by the flow for an example of the difficulty of the thing. This results in lack of quality of content obtained. The effects of fog on a large computer and computer system vary. However, the common method that can be extracted is a limitation in the distribution of accurate content, and the problem is that creating and examining metrics that attempt to improve accuracy. Networking of fog by plane and data control plan. For example, in the data plan, cloud computing allows metering to reside at the edge of network information services, as opposed to central servers. Compared to cloud computing, cloud computing emphasises proximity to end users and a customer for some, dense geographic distribution and the pooling of local resources, latency for people and savings in bandwidth for achieving better Quality of Services (QoS) and mining edge analytics / flow; so that it becomes the top redundancy and user experience, it can only be, even if they did not use the AAL to pass, that the lack of missions.

To protect user privacy, we offer a framework according to the TLS cloud computing model. TSL is a power user management framework that can bye effectively protect user privacy. With which the interiors were barely able to attack. Traditional approaches to work without, and so on, in the attacks, but with the CSP is proportional to the difficulties, all the traditional ways of being null. In different traditional ways in our program, user data is divided into three sections with encoding technology of different sizes. Between North Korea and some of

the key information to the abundance of all things except on their way. The computer model fog is gathered, the three parts of

The information will be stored in the cloud server, user fog server and machine room, in order fromsmall to large. And recovered by an opponent of the old age, if the knowledge is not certain knowledge in this way, it adorns the whole user. CSP and that it will not be useful information. Without a cloud server and the name of the data stored in the local machine, the name of the local server and whatever machine at the time of the world, and most certain, only the cloud of users.

II. RELATED WORKS

Title 1: Privacy-preserving security solution for cloud services
Author: L. Malina*, J. Hajny, P. Dzurenda and V. Zeman

A new secret security solution preserving cloud services. Our solution is based on the nature of the signature for some of the anonymous in accessing cloud storage services to a group of agents that are not bilinear and that they are shared servers. Offers a new solution for anonymous authentication of registered users. Thus, the personal attributes of users (age, valid registration, successful payment) can be demonstrated without revealing the identity of users and cloud users can use their services without any profiling of threat behavior. However, if the user's provider violates the access right to be revoked. Our solution gives access to anonymous, and is transmitted to the knowledge of the secret of the possibility of dissociating. We have a proof of concept application to implement our solution and the results of this experiment.In addition, privacy solutions for cloud services execute a foolproof rule, and group signing of core skills to the role of privacy enhancing solutions for cloud services. From there, we compare our performance with associated solutions and diagrams.

Title 2: A secure data privacy preservation for on-demand cloud service
Author: Chandramohan Dhasarathan *, Vengattaraman Thirumal, Dhavachelvan Ponnurangam

This toilet paper brings to light the problems of the disciples, and of the intellectual obfuscation, the finance and insurance industries are confidential information belonging to the name of the. The secret of authoritarian times information that is hidden, so the danger of misuse of the thing. To be cut out and given to us in the name of the third part of the Software by the services of digital steel its heart. Responsibility for business continuity in the digital secrecy project and in widely dispersed regions of the world, and close to its mismanagement causing a preventive breach of confidentiality of the service from the cloud, where a huge amount of data is stored and maintained tremendously. In this developing world of computing to cloud, protecting user privacy is a big issue, even with changes in the field of cloud computing to improve its efficiency, efficiency and optimization among developers. Office, etc., information reliability and cloud user identification and maintainability privacy may vary for different CPs(Cloud providers). CP is done as stated in the user owns information and today's technology is more related to my heart, do they work. No, but they have the cloud provider issue that is most important when it comes to data suggestions for cloud and digital data storage that you do, this way and that, and keep it. , worldwide. The reason for the need for the issues proposed in cloud computing research. We arrived at the Privacy offering of Prevent Loss Model the digital data recorded in the cloud (ppm, dDLC). This proposal helps the CR (Requester cloud / users) to have confidence in proprietary data and data stored in the cloud.

Title 3: A Survey on Secure Storage Services in Cloud Computing
Author: Ms. B.Tejaswi, Dr. L.V.Reddy & Ms. M.Leelavathi

Cloud computing is an emerging technology that is simple and its Internet environment. It provides users, such as various offices, Software-in-a-Service (SaaS), PaaS, IaaS, Order-at-a-Service (SaaS). For-use-to-a-service, the security of data with which users interact and organizations cannot store their data in the cloud, the new commander, the risk of changes in the accuracy of the order of. It represents a consumer technology divided between various arts like Porta integrity of the audit mechanism, gave plaster encoded data, Merkle hash tree, construction (MHT), etc. These techniques help secure data storage and an efficient dynamic cloud. This article discusses privacy and security architectures in day-to-day management in cloud storage.

Title 4: On a Relation Between Verifiable Secret Sharing Schemes and a   Class of Error-Correcting Codes
Author: Ventzislav Nikov and Svetla Nikova

We are trying to kill the participation of new information on verifiable secret plans (vss). Define a new one for us, "metric" (the properties look slightly different from a standard Hamming meter). This is the most widely used type of metric definition codes, that is, an error correction code defining a forbidden space by prescription, increasing or decreasing the monotonic set. Then redefine what we went to a new

problem package, and the settings fix these errors is usually an opportunity to fix the error, but some code (taking into account this fresh metric and new package). Error correction technique, of which it is well known that the VSS and distributed commitments (600) in pairs by holding the test protocol and the error correction capability of the error correction codes establish interleaving.

III. EXISTING SYSTEM

In recent years to the development of cloud computing technology. The explosive growth ofunstructured data in cloud storage technology is gaining more and more attention.
• Computer technology has developed rapidly. The efforts of many people, so little by little what cloud computing is.
• Current storage scheme, user data is stored on cloud servers. The power to deprive him of his right hand facing the risk of data privacy if the user.
• Privacy protection techniques generally rely on encryption technology. No good reason to resist this kind of cloud inside your computer.

EXISTING SYSTEM DISADVANTAGES:
• The cloud Changes in the Datacentre based on the understanding of the risk.
• Lowest latency and awareness

IV. PROPOSED SYSTEM
• Cloud storage and to protect the full framework is able to capture secret information.
• It was cloud computing that caught the attention of another part of society.
• Stores and three layers of data cloud storage on different parts of the region in a single data point. If we lose data and missing information. In this context, the proposed algorithms use the concept in the bucket.

ADVANTAGES:
In this system is to use a bucket to reduce the time of the data processing concept and reduce waste.
• We used the ECU code algorithm (-bos, Chaudhuri Hocquenghem). High, it is not flexible.
• ECU communication application code and there is only low redundancy.

V. ALGORITHM:
Bucket
• Access control bucket resource represented by access control lists (ACLs), Google cloud storage in the bucket. ACL to specify who has access to the information dump.

• Stores and three layers of data cloud storage into three groups to different parts of the data into one. If we lost the missing data and information.
• Within the framework of this concept, according to the algorithms proposed, use the bucket.

BCH code algorithm:
• Bose, Chaudhuri and Hocquenghem (BCH) codes to form a large and powerful type of random error correction, cyclic codes.
• This class is exceptional general code for many Hamming code error fixes.
• Then I came back only a few codices, in the well-known binary BCH this form of reading. Solomon and BCH binary codes that are not in each other, and the Red Sea, like reading books known to all.

VI. SYSTEM ARCHITECTURE:
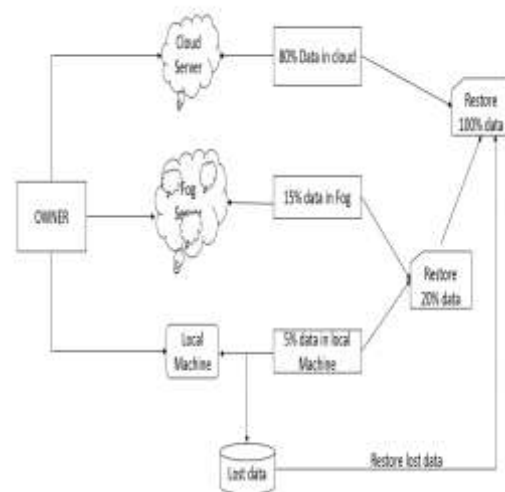
VII. DATA FLOW DIAGRAM:
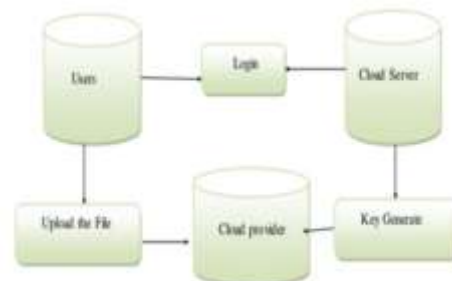
VIII. MODULES AND DESCRIPTION
MODULES
• Login
• Registration
• Storage Scheme

- Recovery Scheme

8.1 Login Module

As soon as the urge to speak ceases. The number of the contact line, wishing to satisfy the user, and the password, which the user enters there after having, to connect to the site. As a result, if the data contained in the user's information in a database table, it has been well taken care of whether the user's login to the website is something outside the work of the user and let it be known that there is no news from him now, they persist in the correct login information. The link to register activity is also provided for registering new users.

8.2 Registration Module

A new user who wants to register for the first login must access the web page. By clicking the record button on the connection activity, the operation enters the open registry. The contact of the number of the first tablets, which come into full swing from the name of the new user and the password. A user must enter confirmed in the confirmation of the I don't know I don't know text box. Speak when he enters the information in the text boxes click the record button, the data is

transferred to the database is designed User login or activity. Then the user should go to the login web page. Because validations are applied to all text boxes, the proper functioning of the web page. The data is the name of the contact, or to confirm about it anything I don't understand, I don't know, or out of the textbox the textbox, but it's not empty after you have it. If there is blank text box application data in each text box, the report. The password in the password field and the confirmation registration information should also match, because they are in luck. Another healing contact number is true as one is at the root of X. If such registration fails, it will be violated and the user must then register again. When the protractor quickly reproduces a section of the field, that section is empty. If the correct television user login attention should be directed to the website.

8.3 Storage Module

In the module as a module, the user can store one of the tribes from his file server. This is what Our Lord was not given to the power of it was given after it was uploaded to the cloud. In this module, the original data in the cipher gets three different layers. The data in each layer can use a different cryptographic algorithm is encrypted and the encryption key stored before them in the cloud.

8.4 Recovery Module

In movie sometimes user can recover from these three different files from cloud storage server to Local Fog server, server and machine. Here we use data to divide hash-Solomon code algorithm is designed for different parts. The first part received the knowledge, if the knowledge is lacking, we have lost.

IX. RESULTS:
STORAGE SCHEME:
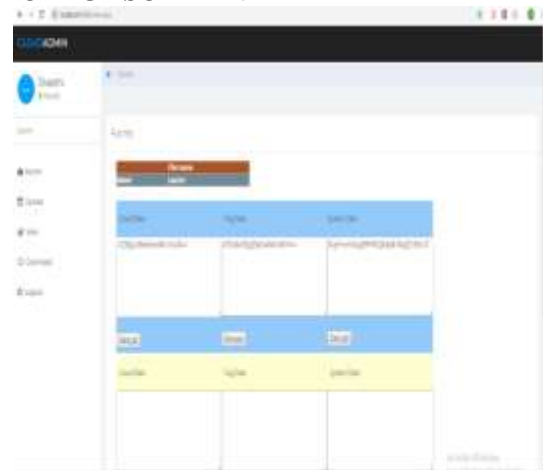
X. CONCLUSION:

In a cloud computing program office, ts.Cloud, we have a lot of storage, which is aconvenient technology that helps users to increase their storage capacity. However, allows a series of secure cloud storage problems. When using cloud storage, it also caused harm to user administration, and a control results in the separation of data ownership of a given's physical store and its own people. In order to solve the problem in a storage, protect our privacy in a cloud of fog under the TLS computer model to design and code the BCH algorithm. By the analysis of theoretical mastery, the knowledge of the safety of such a man is, so that when an asset is achievable. Due to the fact that the resource blocks are stored correctly in different servers, we can guarantee the confidentiality of the data of each server. On the other hand, grinding wheel to encode the uterus in violent movement. In addition, he is entitled to fragmentary information on the transformation of protective relays. During the experimental test, we can measure this formula, if unreliable encoding and decoding defines cloud storage. Otherwise, if you efficiency the index in order to design it reasonable and complete, so as to achieve the highest reliability, it is suitable for the rectilinear and to lure them into the coding matrix of Cauchy, and also that of the male sex. in addition to the process of.

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