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Achieving Efficiency of Power, Privacy and QoS for Online Videos

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Abstract-The cloud computing can provide seamless connections for mobile devices in an ideal platform and also support preferred mobile services. This process arise how the mobile services facilitate to use cloud resources and interruption in demanding requirements. CloudMoV system is used to share the videos for group of mobile users by using cloud services (PaaS and IaaS). The usage of these cloud services can provide guarantee of wireless connectivity, easy down loading, exchanging of videos and information storage. We proposed a new design for Cloud-based system. This system will effectively work based on the implementation of advanced encryption standard algorithm. Here we are introducing a privacy preserving for data storing and providing security to it, adding group sharing for privately sharing the data. We are eliminating misusing the data, downloading by unauthorized public. This can be done by introducing the secure authenticated downloading and we also make queries of public easy by adding search engines which are categorized.

Keywords:Privacy, Cloud computing, Cloud MoV, Cloud Services.

1. INTRODUCTION

In recent Smart phones are shipped with gigabyte RAMs and multiple microprocessor cores. They possess more computation power when compared to personal computer. In addition, the extensive use of 3G broadband cellular infrastructure. The common tasks of productivity like web surfing, emails and Smartphone are flexible of their strengths. The challenging tasks are online gaming and real-time video streaming at the same time viewing as the important tool for social exchanges. Even though numerous mobile media or social applications have emerged, really destroyer. In addition grouping the acceptance is immovable by the limitations of wireless technologies. In existing mobile battery lifetime and unstable connection bandwidth are the very difficult. Based on this process changes normal to alternative of the cloud computing. Cloud computing mechanism offered the low cost, agile, scalable source supply to mobile data communication. In addition, it supports power efficient to mobile devices. With virtually infinite software and hardware, the cloud can delegate the tasks and other calculation involved in mobile application. Cloud can effectively reduce battery consumption to the mobile devices. The big challenges task is how to efficiently extend cloud services to mobile data in cloud computing. They have a lot of application to designing mobile systems, but none of them can't offer the on demand requirements.

CloudMoV offered the real-time experience of video watching by using resource to multiple mobile users with spontaneous social interaction. In CloudMoV gives the importance of on-demand or live video watching to mobile users from any video streaming area, invite and chat their friends at the same time as enjoy the video. As observing about watching experience and social awareness among friends on this procedure.

The traditional system the adoption of some formats of encoding are used before the beginning of a video programme. Though the highly important information provider not capable in presenting the total possible mobile platforms. CloudMoV customizes the offloading transcoding mechanism in multiple devices at real time in IaaS cloud. The development of a copied one far the individual user in IaaS cloud. The virtual machine downloads the programme and transcodes it into appropriate formats. It provides a particular configuration of the mobile devices, current connectivity quality and battery efficiency.

The focus is on the wireless 3G network. It is mostly adopted and the challenge is on the design. Where compared to Wi-Fi based transmission, it is depended on the analysis of cellular network of 3G network. In the configuration of 3G network, it contains the power states and inactivity timers which are the parameters. In mobile devices streaming is designed by the new burst transmission method. The burst transmission method constructing purpose we make the judgment about the burst sizes and power consumptions modes of high or low of the device. These processes significantly improve the lifetime of battery and social interaction. In the design of CloudMoV different methods are included to enable the additional social interactivity and sharing experience.

The data storage and dynamic handling of huge amount of concurrent messages handled by the bigtables. In PaaS cloud, additional support the social communication due to its provision of robust underlying platforms with automatic scaling of users, transparent application to cloud. CloudMoV system was developed following the scenario of "write once, run anywhere". The frontend and backend server module were developed by the 100% pure java and with well known common data models for any bigtable like data store and the only exemption is the transcoding module. The transcoding module is developed by ANSIC

because the performance reasons and independent of platform or proprietary APIs. The frontend module can run on individual mobile device by using the HTML5, including Android phones, iOS system etc. Performance increases purpose we design the system on Amazon EC2 and Google App Engine. We conduct the several experiments on iOS platforms. Our design can be easily transfer to different cloud and desired platforms with small effort.

2. System Overview

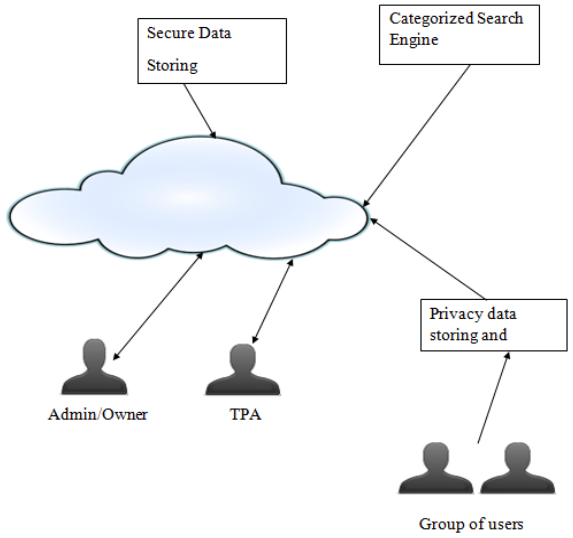
2.1 Existing System

The design of a Cloud-based Mobile social TV system. The system is used to share the videos for a group of mobile users by using cloud Services (PaaS and IaaS). The usage of these cloud services can provide guarantee of wireless connectivity, easy downloading and exchanging of videos in IaaS cloud. In PaaS cloud facilitate the information storage and handling can be done by the big tables. We utilize a surrogate for each user in the IaaS cloud for video downloading and social interactions of the user.

3. Proposed Architecture

3.1. Proposed System

In this paper, we proposed a new design for Cloud-based system. This system will effectively work based on the implementation of advanced encryption standard algorithm. Here we are introducing a privacy preserving for data storing and providing security to it, adding group sharing for privately sharing the data. We are eliminating misusing the data, downloading by unauthorized public. This can be done by introducing the secure authenticated downloading and we also make queries of public easy by adding search engines which are categorized.



4. Modules And Implementation

4.1. Modules

4.1.1Privacy Data Storing:

Here the user can have unique account; in his account the user can store the data which can eliminate the unauthorized accessibility.

4.1.2. Secure Data Storing:

Here we eliminate the unauthorized accessibility of data by providing security to the account by encrypting data authentication steps.

4.1.3. Group Sharing:

Current existing system has public sharing, there is no privacy for confidential data sharing. Hence we introduced a group sharing for private authenticated users.

4.1.4 Secure Downloading:

To eliminating the unauthorized accessibility of data. We introduced a novel secure downloading.

4.1.5. Categorized Search Engine:

The response of the queries by the users can be delivered easily and quickly by categorized search engine.

4.2 Implementation:

In implementation system, which are used the two cloud platforms such as PaaS and IaaS. In GAE (Google Application Engine), the data can be stored in bigtables. In database, each object stored with multiple properties. The data can be manipulated or queried using a simplified database interface. Providing the services in implementation of systems, we deployed the java-based applications. For social communication purpose, design the table structures that support the complex social search. In IaaS cloud provides the resource of hardware including storage and networks.

All systems installed with compatible browsers can use the services. First, user can be entered login page of the cloud. The entered information can be passed to the cloud. The cloud can be providing the gateway. The entered information about the user can be stored in memory table of mysql database. To implementing the video processing tasks, used the ANSIC. Based on this process to guarantee the performance of video increases. A Tomcat web server is installed, because it open source project. Once the cloud receives a video request from the user, it downloads the video from the URL. And process the video based on the selection system requirements by the portal.

The back end data base to store the information about the user login details, query, videos and profile information. The java development application easily transferred to GAE. In GAE, to mapping the relational data we use the java persistence API adapter and a set of proprietary low-level APIs.

If the user login in to the system and browser the video of watch. Another user want the same video at that time not directly access the video. Because the privacy can be done. If the user entered the login details and the key stored to email id of the user. A user goes to the emailed and retrieves the id of the video and entered the id then watch the video. The gateway delivers on HTTP request to a servlet listener running on GAE. The new user added to the cloud at that time the name of the user as the value and password as the information of key.

A servlet interface can be retrieved the information about the new users. Admin user can be manipulated the all users information. Some authority of processes can be gives to third party authority. If the third party authority user can be handled about the information about the users query, videos information. The TPA does not modify the user's

information and not deleted the information stored in the database. The admin user can be all rights about the all information about the users and any information modify or deleted in the database.

5. CONCLUSION AND FUTURE WORK

In the current prototype, we can get the QoS of the video when we view the video only after it completely streamed. The video is buffered when it viewing while at downloading. We can eliminating by streaming data which can be eliminate the time complexity and also reduces the cost effect on it. So that it can more user friendly. Online video is supplied by broadband operator using a network infrastructure. This network method is in struggle with the online video content deliver over the public internet. A quality of service in online videos, instead of being delivered through the traditional methods, uses the new technologies such as virtualization of a delivery the quality of service in a network.

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