ANDROID MOBILE APPLICATION FOR VIDEO STREAMING USING CLOUD COMPUTING

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Abstract- The project is designed to develop the android app for video streaming using load balancing. Streaming video is very necessary part for multimedia. Due to vast growth of internet and demand for multimedia information on the web which is increasing day by day. Load balancing distributes the load to available no. of servers. The goal of load balancing is to improve the performance of video.

Keywords- Video Streaming, Load balancing, Multimedia, Mobile device, Cloud computing.

I. INTRODUCTION

The use of mobile devices is growth very rapidly and becomes important part of our life. The use of android devices is for sharing multimedia videos on social networking sites e.g., streaming on website like YouTube. The cloud computing provides platform for other advanced technologies like big data, mobile computing to implant its service and provide the QOS to customers. Mobile cloud computing refers to the infrastructure where data storage and processing of data happen outside of mobile devices. User can store and process the video application data in cloud by distributed manner and for saving the battery of mobile devices. These service provide to the capability of storing video in the cloud, and access to that video from any android mobile devices anywhere. The streaming stands for the real-time transport of live or stored media like video and any associated data over the Internet, between the client and server computers. Streaming technology uses the delivery of audio and video over the Internet and it reaches to many people using their personal computers offering live sport, music, news, entertainment and on-demand content.

II. EXISTING SYSTEM

The existing system was Centralized Hierarchical System. In centralized hierarchical cloud-based multimedia system, it consists of a cluster heads, resource manager and server clusters. In this, resource manager will gives the clients requests for multimedia service tasks to server clusters according to the task characteristics. Then, each cluster head will distribute the assigned task to the servers with its server cluster. In existing system it was challenge to design a effective load balancing algorithm. Load balancing will spreads the multimedia service task to load on servers. With the minimal cost for transmitting multimedia data between server clusters and clients.

The system is centralized system in which it supports a huge number of clients simultaneously to store and process their multimedia application. Data in a distributed manner and meet different multimedia. In Centralized hierarchical system, composed of a resource manager and a number of server clusters each of is coordinated by a cluster head and assume the servers in different server clusters provide different services.

III. LITERATURE SURVEY

Cloud Based Interactive Mobile Multimedia Streaming

This paper analyze issues of delay at the time of storing the multimedia file from cloud. The concept of this paper was to examine unexpected interruption of users device i.e. android mobile and automatic reformation from the cloud. The data of multimedia can be accessed freely by mobile devices permit us to enjoy pervasive network services. The user device and network limitations are considered, the proposed system must be network and device aware of QOS. The proposed system
will reduce delay and also it will provide appropriate data format from cloud to the devices. It will interact with the user device when they request for special multimedia data.

**User Adaptive Mobile Video Streaming and User Behavior Oriented Video Pre-Fetching In Cloud**

Video streaming increases very fastly in mobile network. It is a important need for the quality of video which is delivered along mobile network. The system shows result the poor service quality of video streaming over mobile network. The system takes the buffering time and interrupt happen in the streaming video. For this, in the propose system a new mobile video streaming method using cloud. In cloud here the use of user-Adaptive Mobile Video Streaming (AMoS) and the User Behavior Oriented Video Pre-Fetching (UBoP). In this private agent is created for video distribution. It adjusts the streaming and reduces the traffic using SVC i.e Scalable Video Coding. It shows the social interaction in the mobile users. Efficient perfecting video content done in cloud. Prefetching done based on user resolution and bandwidth.

**Dynamic Multi-Service Load Balancing in Cloud-based Multimedia System**

In this paper the centralized system is considered for the cloud-based multimedia system i.e (CMS). It consist of a Cluster heads, Resource Manager and Server Clusters. In this the resource manager gives client requests to server clusters for multimedia services. It is according to the task properties. After this each cluster head will distribute the given task to the servers within its server cluster. This is very complicated system. For this complicated cloud based multimedia system i.e CMS, it is challenge to research to design an resulting load balancing algorithm which spreads the multimedia service task load on servers with the minimum cost for transforming multimedia data between clients and server clusters. This paper takes into account a more practical dynamic multi-service scenario in which each server cluster only handles a specific type of multimedia tasks and each client requests a different type of multimedia services at different time.

**IV. PROPOSED SYSTEM**

Consider distributed cloud-based multimedia system consisting of android device. Number of servers and load balancing algorithm to perform the task.

In this distributed system there is android mobile, in which user can upload and store video by registration. Distributed system having number of servers. For number of servers, this system performs load balancing algorithm. The load balancing algorithm is main concept in this system. Load balancing algorithm will distribute the equal load or task to available number of servers. The result in the form of "Streaming Video". The Streaming video is creating, managing, delivering high quality and also on demand streaming live video directly to the users. Streaming also called as playing media on one device when it stored on another device. The main aim of streaming video in this system to deliver the "non-buffering" video to user.
V. MATHEMATICAL MODEL

Let $S$ is system
$S = \{U, I, O, D, P\}$

Where,
$U$ is set of users
$U = U_1, U_2, U_3, \ldots, U_n$
$I$ is set of inputs
$I = I_1, I_2, I_3, \ldots, I_n$
$O$ is set of outputs
$O = O_1, O_2, O_3, \ldots, O_n$
$D$ is set of devices
$D = D_1, D_2, D_3, \ldots, D_n$
$P$ is set of Processing
$P = P_1, P_2, P_3, \ldots, P_n$

VI. CONCLUSION

The main difference of our model and previous model is that we are developing the distributed system for video streaming using load balancing instead of centralized hierarchical system. The main feature of our system is streaming technology. The streaming technology is for better video performance. The load balancing algorithm is used for load the balance among servers in distributed system.

REFERENCES