

LIVE STREAMING THROUGH ANDROID APPLICATION USING CLOUD COMPUTING

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Abstract

Keywords:

crowd source;

resource allocation;

bandwidth capabilities;

multi attendee;

In real life there is need to capture and share all special event. If there is multi attendee then the existing have some problem .The proposed system which collects individual video streams captured from same event and they combine into multi view videos. In this approach viewers can watch the one event from various angel, this is called as Cloud based Multi View Crowd-source Streaming (CMVCS). This approach focus on resource allocation of CMVCS system. Capture the video from one side and simultaneously access that video from anywhere. In this approach the system gives high bandwidth capability for decreasing the delay time.

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1. Introduction

There are many new technology, the present patterns are the advancement in AndroidPhone's which are utilized by many people in everyday life. Additionally there is advancement in Cloud Computing. Cloud gives a big storage instead of Traditional Hard-Disk. Cloud is not only providing storage but also provide the many different services. So now a day's everything is dependent on Cloud and Smart phone. Together with an explosive development of the portable applications and emerging of cloud computing concept, mobile cloud computing (MCC) has been introduced to be a potential technology for mobile services. MCC integrates the cloud computing into the mobile environment and Video Streaming using Cloud Computing Based on Android Application overcomes obstacles related to the performance (e.g., battery life, storage, and bandwidth), environment (e.g., heterogeneity, scalability, and availability), and security (e.g., reliability and privacy). This project concentrate on the main domain's such as designing the private cloud, deployment of private cloud, designing android application. This private cloud provides the services like video Streaming. Here user gets the different services by using SAAS.

The term "cloud", appears to have its origins in network diagrams that represented the internet, or various parts of it, as schematic clouds. "Cloud computing" was coined for what happens when applications and services are moved into the internet "cloud." Cloud computing is not something that suddenly appeared overnight; in some form it may trace back to a time when computer systems remotely time-shared computing

resources and applications. More currently though, cloud computing refers to the many different types of services and applications being delivered in the internet cloud, and the fact that, in many cases, the devices used to access these services and applications do not require any special applications.

Kinds of Clouds

There are different types of clouds that you can subscribe to depending on your needs. As a home user or entrepreneur, you will most likely use public cloud services.

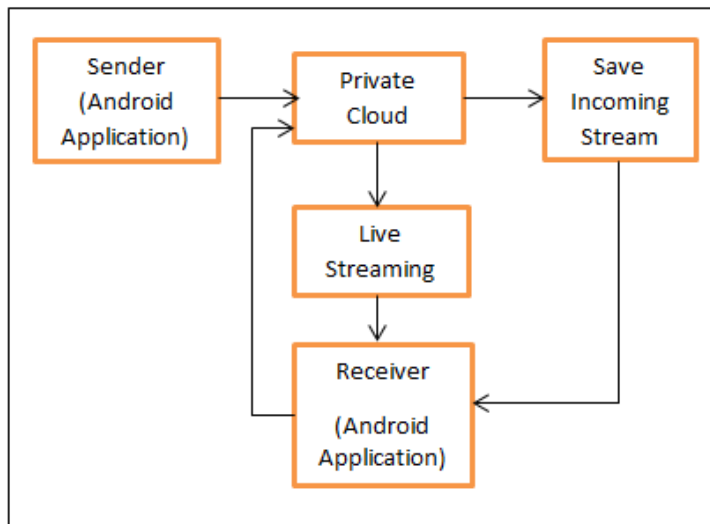
Public Cloud - A public cloud can be accessed by any supporter a web association and access to the cloud space.

Private Cloud - A private cloud is built up for a specific group or organization and limits access to just that group.

Community Cloud - A community cloud is shared among two or more organizations that have similar cloud requirements.

Hybrid Cloud - A hybrid cloud is essentially a combination of at least two clouds, where the clouds included are a mixture of public, private, or community.

System Architecture:



In this architecture by using cell phone user can capture some event and upload that event on cloud. User directly upload event and same time receiver can watch event without storage or also we provide the option like incoming stream record to store that event. So in our system sender capture event and send to the private cloud and after that if we want to store we can store it using save incoming stream. After that streams are forwarded to receiver. If receiver want to watch particular event then receiver make request to private cloud.

2. Research Method

“Multiple Description Coding and Recovery of Free Viewpoint Video for Wireless Multi-Path Streaming” Zhi Liu, Gene Cheung, Jacob Chakareski, Yusheng

Ji[1] They propose a multiple description coding system for multi-path transmission of free-viewpoint video, with joint interview and temporal description recovery capability. In particular, they encode separately the even frames of the left view and the odd frames of the right view, and transmit them as one description on one path.

“Crowdsourced Live Streaming over the Cloud” , Fei Chen, Cong Zhang, Feng Wang, Jiangchuan Liu[2] In this paper they present a generic framework that facilitates a cost-effective cloud service for crowdsourced live streaming. Through adaptively leasing, the cloud servers can be provisioned in a fine granularity to accommodate geo-distributed video crowdsourcers. They present an optimal solution to deal with service migration among cloud instances of diverse lease prices.

“Wireless Streaming of Interactive Multi-View Video via Network Compression and Path Diversity” Jacob Chakareski[3] In this paper, They formulate a system framework for network compression of interactive multi-view streaming video. The setup comprises a media server that delivers the content over two independent network paths to a client. System features a proxy-server located at the junction of the wired and wireless portions of each path. The proxy dynamically adapts the content data sent over the wireless links, in response to channel quality feedback from the client, such that video distortion at the client is minimized.

“A Survey on Multiview Video Synthesis and Editing” Shaoping Lu, Taijiang Mu, Songhai Zhang[4] In this paper, This survey provides a comprehensive review of existing multiview video synthesis and editing algorithms and applications. the related technologies in classical 2-D image and video processing are reviewed. They then continue to the discussion of recent advanced techniques for multiview video virtual view synthesis and various interactive editing applications.

“Coding Structure Optimization for Interactive Multiview Streaming in Virtual World Observation ” Gene Cheung , Antonio Ortega , Takashi Sakamoto [5] In this paper they address the problem of interactive multiview streaming, where they minimize the expected transmission rate of an interactive multiview video stream, where the observer can select the view of the next frame, subject to a storage constraint. They show that gains can be achieved by optimizing the trade-off between overall storage and transmission rate,

i.e., by storing amore redundant multiview representation (where some frames are encoded more than once,each time using a different reference frame) it is possible to reduce the overall bandwidthneeded for online interactive viewing.Explaining research model, theory, technique of collecting the data, technique of analyzing the data, hypothesis.research chronological, including research design, research procedure (in the form of algorithms, Pseudocode or other), how to test and data acquisition [1]-[3]. The description of the course of research should be supported references, so the explanation can be accepted scientifically [2], [4].

3. Results and Analysis

In our result analysis, viewers around the globe are watching some educational event, such as classroom lecture or any other popular event. We have 10,000 streams, but with a very large viewer base of 4 Million viewers globally. Only 1 % of the views are watched by 99% viewers.

Fig 3.1presents the result of comparison of traditional system and proposed system for delay time.

Fig 3.2 presents the result for varying frames.

	Traditional System	Proposed System
1	3400	2000
2	2300	800
3	4000	2300
4	4550	2400

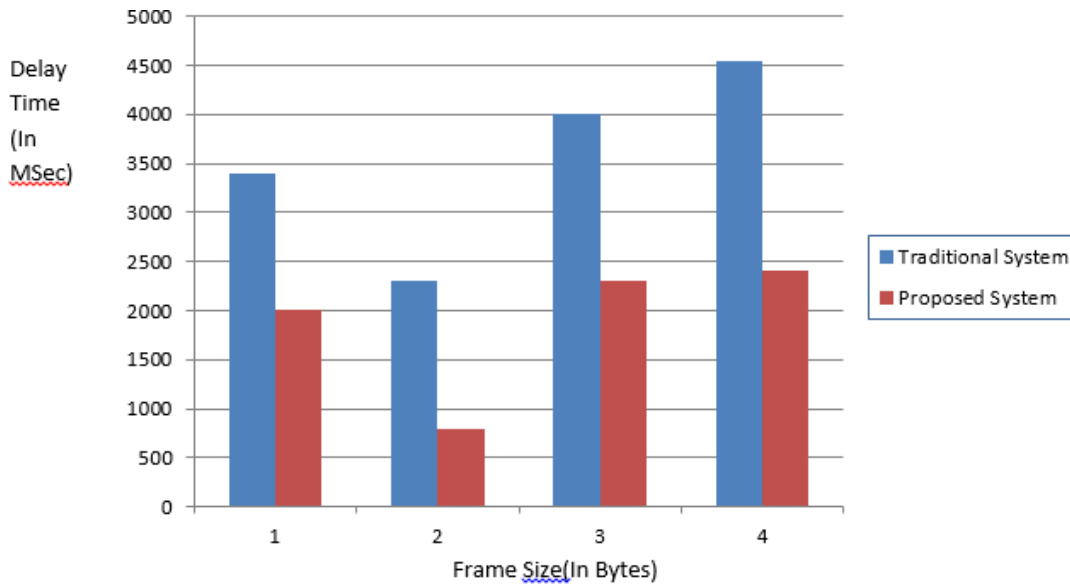


Fig. 3.1 Comparison of Traditional System and Proposed System for Delay Time

	Traditional System	Proposed System
1	16000	40000
2	19000	25000
3	17000	20000
4	25000	30000

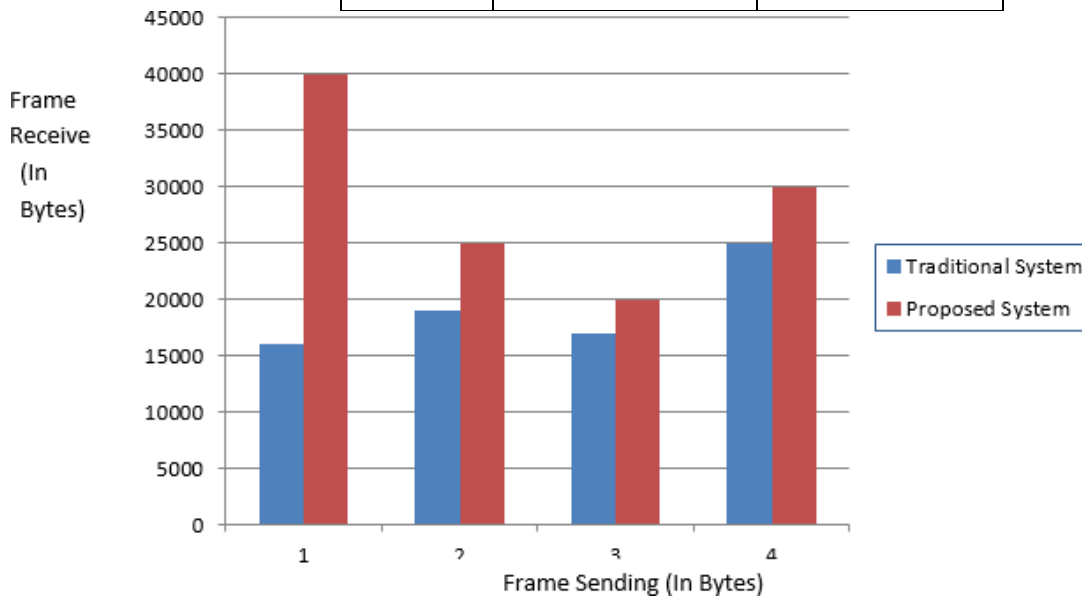


Fig 3.2: Comparison of Traditional System and Proposed System for Frame Receive

4. Conclusion

Battery is one of the primary concerns for mobile devices. A few arrangements have been proposed to improve the CPU execution and to deal with the disk and screen in an intelligent manner to decrease power consumption. However, these solutions require changes in the structure of mobile devices, or they require equipment that results in an increase of cost and may not be feasible for all mobile devices. Video streaming is developed to enable mobile users to store/get the vast information on the cloud through wireless networks. Storing data or running applications on clouds is a powerful method to enhance the reliability since the information and application are stored and backed up on a number of computers. This reduces the possibility of data and application lost on the mobile devices. So there is a not need to install any software in our mobile system and execute it.

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