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RESEARCH ARTICLE

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CARTRIDGE STREAMING IN WIRELESS DEVICES

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ABSTRACT

Multimedia services provide a capable, flexible, and scalable data processing method and offer a elucidation for the user demands of high quality and diversify multimedia. Generally speaking, accessing multimedia video services through networks is no longer a problem. The major video platforms, such as You tube and Amazon, have good management styles and provide users to share multimedia videos easily with diversified services. No matter what the service is, users will always expect powerful, sound and stable functions. For multimedia videos, stability is of the greatest importance. As intelligent mobile phones and wireless networks become more and more popular, network services for users are no longer limited to the home. Multimedia information can be obtained easily using mobile devices, allowing users to enjoy everywhere network services. This paper presented a network and device-aware Quality of Service (QoS) approach that provides multimedia data suitable for a workstation unit environment via interactive mobile streaming services, the overall network environment and adjusting the interactive transmission frequency and the dynamic multimedia transcoding, to avoid the waste of bandwidth. To reduce the buffering and produce the high quality picture to the mobile devices. In the proposed system Adaptive bit rate streaming(ABR)is used to produce more quality compare than the scalable video coding.

Key Words— SVC,QOS,ABR

I. INTRODUCTION

Mobile computing is human–computer interaction by which a computer is expected to be transported during normal usage. Mobile computing involves mobile communication, mobile hardware, and mobile software. Communication issues include adhoc and infrastructure networks as well as communication properties, protocols, data formats and concrete technologies. Hardware includes mobile devices or device components. Mobile software deals with the characteristics and requirements of mobile applications.

Mobile Computing is "taking a computer and all necessary files and software out into the field". Mobile computing is any type of computing which use Internet or intranet and respective

communication links, as WAN, LAN, WLAN etc. Mobile computers may form a wireless personal network or a piconet.There are at least three different classes of mobile computing items:

- Portable computers, compacted lightweight units including a full character set keyboard and primarily intended as hosts for software that may be parameterized, as laptops, notebooks, notepads, etc.
- Mobile phones including a restricted key set primarily intended but not restricted to vocal communications, as cell phones, smart phones, and phonepads, etc.
- Wearable computers, mostly limited to functional keys and primarily intended as incorporation of software agents, as watches, wristbands, necklaces, keyless implants, etc.

Streaming Media may be defined as listening or viewing media in real time as it comes across the World Wide Web. With streaming technology, users can watch and listen to media while it is being sent to their browser, instead of waiting for it to completely download and then playing it. Streaming technology allows users to receive live or pre-recorded audio and video, as well as "illustrated audio" (sound synchronized to still pictures).

II. Literature review

Video streaming is the most popular in the smart phones. Streaming video in wireless devices are often used to frequent periods of rebuffering. It produces the low quality picture. To achieving smooth and quality of video is big challenge in mobile devices. In this paper client side scheduler to retrieves segments of video encoding. The scheduler reduces the video interruptions and achieves the video quality. Streaming high-quality video means it requires a lot of bandwidth. It mainly focus on the live video streaming.

If a user is connected to the Internet. The connection may be fixed one means, it may not be a problem. If the connection is established using a wireless link. The available bandwidth becomes create a bottleneck. In this paper they introduces an adaptive pull-based scheduler method to achieve smoothness of the video. The videos are divided into segments. The video segments of multiple servers are reduces the response time.

Wireless Devices are capable to connecting multiple networks. Streaming A high quality video is popular in wireless devices. Due to bandwidth limitations, streaming video can be rebuffered and produced low quality picture. In this paper video is divided into independent segments depends on the available bandwidth. To increase the performance the video segments are again divided into smaller sub segments.

Both sub segment approaches were evaluated with on-demand streaming and quasi-live streaming. The new sub segment approach reduces the number of playback interruptions and improves video quality significantly. According to the streaming high quality video requires high bandwidth. Due to the bandwidth limitation it produces the low quality picture. The quality level is chosen for every segment. To increase performance segments are divided into sub segments and it reduces the playback interruptions and improve the video quality.

III. PROPOSED SYSTEM

The existing system requires more time to execute. In existing System progressive download, one of the most popular and widely deployed streaming techniques, buffers a large amount of video data to absorb the variations of bandwidth. Video data are transmitted over HTTP protocols; the video streaming service can be deployed on any web server. In which smart phones only have limited storage space, it is impractical to maintain a very large buffer size. The buffered unwatched video may be wasted if the user turns off the video player or switches to other videos.

In the proposed system Adaptive bit rate streaming method is used. To improve client side streaming adaptive bit streaming method is used. Multiple video formats can be displayed. To provide end users with higher-quality playback by adjusting the stream to fit the client's current network and processing conditions. Adaptive streaming means producing multiple files of different sizes for each video, then letting the user switch to the stream that plays best at any time. It guarantees the viewers will get the highest quality possible without buffering. When you produce for adaptive streaming, it producing multiple files that change according to changing buffer conditions in the player, and also changing CPU conditions.

Adaptive streaming technologies encode multiple live or on-demand streams and switch them adaptively based upon changing line conditions and other variables. When the connection is good, the viewer gets a high-quality, high-data-rate stream, but if connection speed drops, the server will send a lower-data-rate file to ensure a continuous connection, albeit at lower quality. Adaptive streaming provides the best of all possible worlds: great quality-video for those with the connection speed to retrieve it (and the CPU required to play it back), and a passable-quality stream for those with Wi-Fi, mobile or other slow connections on lower-power devices. There are multiple adaptive streaming alternatives today, including Adobe's Dynamic Streaming, Apple's HTTP Live Streaming and Microsoft's Smooth Streaming.

*A.*Client Registration:

Whenever a new client enter means first register to the server side. It contains user name ,password ,email id etc. After registration process complete then only it will communicate to the server. Client will enter the condition and network bandwidth to the server side. It will be very useful for the client side streaming.

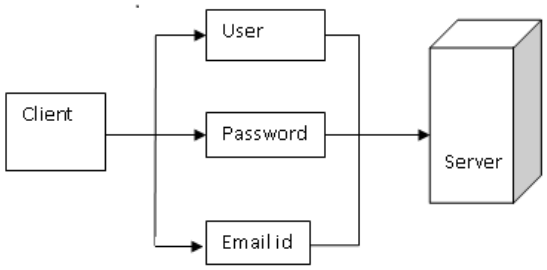

Figure 1:Client registration

B. Login:

In the client side user first login to the server. User will send request to the server. User give their valid user name and password. Server verify the details and immediately send the response to the client. In the login phase only valid user can enter their details.

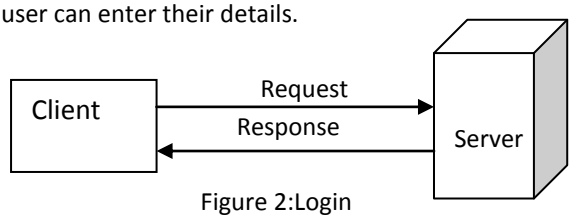

Figure 2:Login

C.Network and Device Aware Multi-Layer Management (NDAMM):

The NDAMM aims to determine the interactive communication frequency and the SVC multimedia file coding parameters according to the parameters of the mobile device. It hands these over to the STC for transcoding control, so as to reduce the communication bandwidth requirements and meet the mobile device user's demand for multimedia streaming. It consists of a listen module, a parameter profile module, a network estimation module, a device-aware Bayesian prediction module, and adaptive multi-layer selection. The interactive multimedia streaming service must receive the user profile of the mobile device instantly through the listen module. The parameter profile module records the user profile and determines the parameter This is provided to both the network estimation module and the device-aware Bayesian prediction module to predict the required numerical values. When this parameter form is maintained, the parameters can be transmitted to the network estimation module and the device-aware Bayesian prediction module for relevant prediction.

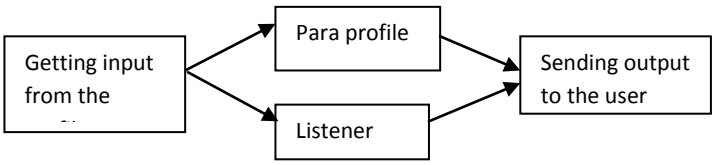

Figure 3: Network and Device Aware Multi-Layer Management

D.Dynamic Network Estimation Module (DNEM):

The DNEM is mainly based on the measurement-based prediction concept; however, it further develops the Exponentially Weighted Moving Average (EWMA). The EWMA uses the weights of the historical data and the current observed value to calculate gentle and flexible network bandwidth data for the dynamic adjustment of weights. In order to determine the precise network bandwidth value, the EWMA filter estimates the network bandwidth value in which is the estimated bandwidth of the No. t time interval, is the bandwidth of the No. time interval, and is the estimation difference. For different mobile network estimations, this study considered the error correction of estimation and the overall standard difference and estimated the different bandwidths

by adjusting the weights among which, is the moving average weight and is the standard deviation weight.

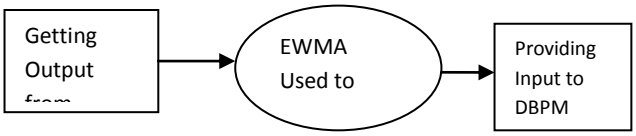

Figure 4:Dynamic Network Estimation Module

E.Network and Device-Aware Bayesian Prediction Module (NDBPM):

The SVC hierarchical structure provides scalability of the temporal, spatial and quality dimensions. It adjusts along with the FPS, resolution and video variations of a streaming bit rate: however, the question remains of how to choose an appropriate video format according to the available resources of various devices. Hereby, in order to conform to the real-time requirements of mobile multimedia, this adopted Bayesian theory to infer whether the video features conformed to the decoding action.

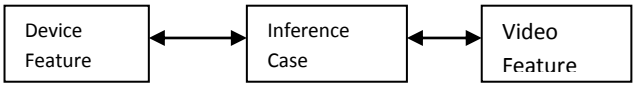

Figure 5: Network and Device-Aware Bayesian Prediction Module

F. Video Streaming:

A client media player can begin playing the data before the entire file has been transmitted. Streaming media works a bit differently — the end user can start watching the file almost as soon as it begins downloading. In effect, the file is sent to the user in a (more or less) constant stream, and the user watches it as it arrives. The obvious advantage with this method is that no waiting is involved. Streaming media has additional advantages such as being able to broadcast live events (sometimes referred to as a *webcast* or *netcast*).True streaming video must be delivered from a specialized streaming server.

IV. EXPERIMENTAL RESULTS

In this section experimental results are discussed.Installing the Network qos in the android emulator.

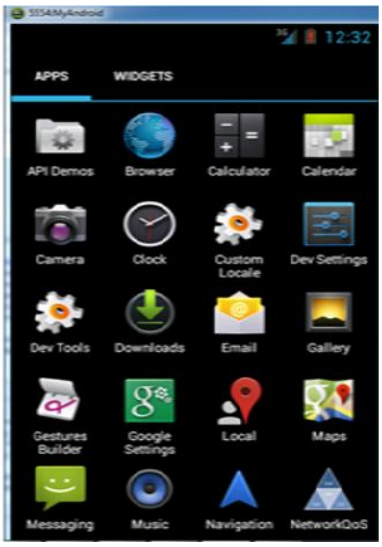

Figure 6:Installion

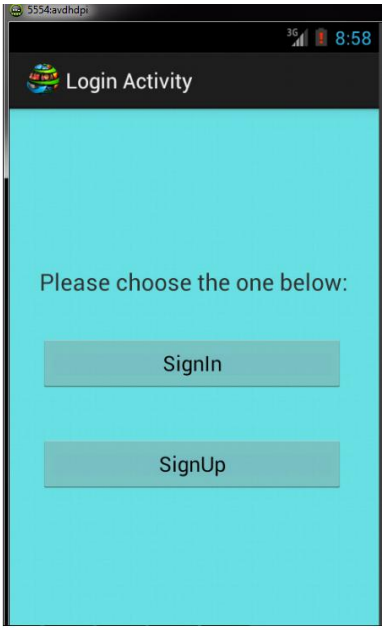

Figure 7: Login Activity

Figure 8:user login

Figure 9:Getting user information

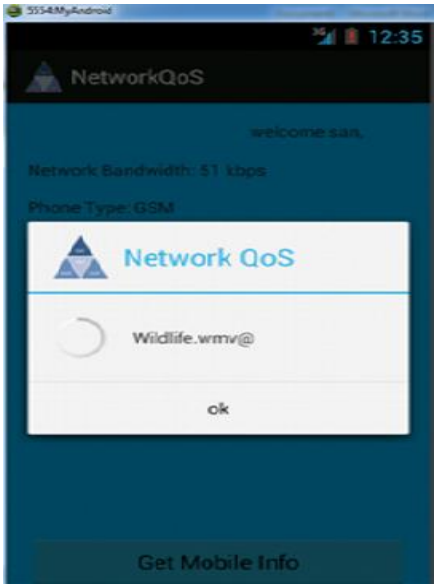

Figure 10:Selecting Video

Figure 11:Loading Video

Figure 12:Display video

V. Conclusion

For mobile multimedia streaming services, how to provide appropriate multimedia files according to the network and hardware devices is an interesting subject. In this work, a set of adaptive networks and a device aware Quality of service approach for interactive mobile streaming was proposed. The Dynamic estimation module and device aware Bayesian prediction module were used for the prediction of network and hardware features, and the communication frequency and scalable video coding multimedia streaming files most suitable for the device environment.

VI. Future work

The system requires high time to execute. To overcome the problem Variable Bit Rate (VBR) is employed in future. In the future system user can upload and download the video using VBR.VBR is most commonly used for http streaming.VBR should produce a higher quality it allocates file data rates as necessary to maximize quality.

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