A Novel Social TV For Improving Users Viewing Experience By Using Cloud

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ABSTRACT:
The latest cloud computing technology with its wealthy possessions to balance for the limitations of mobile devices and connections can potentially endow with an ideal platform to hold up the desired mobile services. Strong challenges occur on how to efficiently exploit cloud resources to make easy mobile services particularly those with inflexible interaction delay requirements. I propose the design of a Cloud-based novel Mobile social TV system (CloudMoV). The system efficiently utilizes both PaaS (Platform-as-a-Service) and IaaS (Infrastructure-as-a-Service) cloud services to suggest the living-room knowledge of video watching to a group of dissimilar mobile users who can interrelate socially while sharing the video. To assurance good streaming quality as experienced by the mobile users with time varying wireless connectivity i employ a substitute for each user in the IaaS cloud for video downloading and social exchanges on behalf of the user.

KEYWORDS: Computers and information processing, Mobile computing, Communications technology, TV, Mobile TV.

INTRODUCTION:
I illustrate the aim of a novel mobile social TV system, CloudMoV which can successfully utilize the cloud computing paradigm to recommend a living-room experience of video watching to dissimilar mobile users with impulsive social interactions. In CloudMoV mobile users can import a live or on-demand video to look at from any video streaming site, invite their friends to watch the video simultaneously and chat with their friends while enjoying the video. It consequently blends viewing experience and social awareness among friends on the go. Even though many mobile social or media applications have emerged accurately killer ones gaining mass recognition are still obstruct by the limitations of the current mobile and wireless technologies amongst which battery lifetime and unbalanced connection bandwidth are the most difficult ones. It is normal to resort to cloud computing the newly-emerged computing concept for low- cost, supple, scalable resource supply, to support power-efficient mobile data communication. There have been a few studies on designing mobile cloud computing systems but none of them pact in meticulous with severe delay requirements for impulsive social interactivity amid mobile users.

RELATED WORK:
Several early systems carry the “living room” occurrence to small screens on the go. But they focus more on barrier authorization in order to understand the convergence of the television network and the mobile network than exploring the demand of “social” interactions among mobile users. There is one more trend in which efforts are committed to extending social elements to television systems. Compared to these prior work and systems i aim at a design for a generic portable mobile social TV framework featuring co-viewing experiences among friends over geographical separations through mobile devices.

EXISTING METHOD:
A number of mobile TV systems have sprung up in recent years ambitious by both hardware and software advances in mobile devices. Some early systems bring the living room experience to small screens on the move. But they focus more on barrier clearance in order to realize the convergence of the television network and the mobile network, than exploring the demand of “social” interactions among mobile users. For any application targeted at mobile devices reducing power consumption is perennially one of the major concerns and challenges.

DISADVANTAGES:
Though many mobile social or media applications have emerged truthfully killer ones gaining mass acceptance are still impeded by the limitations of the
current mobile and wireless technologies among which battery lifetime and unstable connection bandwidth are the hardest ones.

**PROPOSED METHOD:**
I recommend the design of a Cloud-based novel Mobile social TV system. The system effectively utilizes both PaaS (Platform-as-a-Service) and IaaS (Infrastructure-as-a-Service) cloud services to put forward the living-room experience of video watching to a group of distinct mobile users who can interact socially while sharing the video. To guarantee good streaming quality as experienced by the mobile users with time unreliable wireless connectivity I employ a surrogate for each user in the IaaS cloud for video downloading and social exchanges on behalf of the user.

**ADVANTAGES:**

*Encoding flexibility:* Unusual mobile devices have differently sized displays customized playback hardware’s, and various codec’s. CloudMoV customizes the streams for different devices at real time by offloading the transcoding tasks to an IaaS cloud.

*Battery efficiency:* The disintegrate transmission mechanism makes careful decisions on burst sizes and opportunistic transitions among high/low power consumption modes at the devices in order to effectively increase the battery lifetime.

*Spontaneous social interactivity:* Several mechanisms are included in the design of CloudMoV to facilitate spontaneous social, co-viewing experience.

*Portability:* A prototype CloudMov system is implemented following the philosophy of “Write Once, Run Anywhere” (WORA).

**SYSTEM ARCHITECTURE:**

The architecture gives an overview of the architecture of CloudMoV. A surrogate (i.e., a virtual machine (VM) instance), or a VM surrogate equivalently, is created for each online mobile user in an IaaS cloud infrastructure. The surrogate acts as a proxy between the mobile device and the video sources, providing transcoding services as well as segmenting the streaming traffic for burst transmission to the user. Transcoder. It resides in each surrogate, and is responsible for dynamically deciding how to encode the video stream from the video source in the appropriate format, dimension, and bit rate. Reshaper. The reshaper in each surrogate receives the encoded transport stream from the transcoder, chops it into segments, and then sends each segment in a burst to the mobile device upon its request (i.e., a burst transmission mechanism), to achieve the best power efficiency of the device.

**TRANSCODER:**
It resides in each substitute and is dependable for dynamically deciding how to encode the video stream from the video source in the suitable format, dimension, and bit rate. Before delivery to the user the video stream is further summarized into a proper transport stream. Each video is exported as MPEG-2 transport streams which is the fact standard nowadays to distribute digital video and audio streams over miserable medium.

**SOCIAL CLOUD:**
Social network is a dynamic virtual organization with inherent trust relationships between friends. This dynamic effective organization can be formed since these social networks reproduce real world relationships. It allows users to interact from connections and share information with one another. This trust can be used as a foundation for information hardware and services sharing in a Social Cloud.

**MESSENGER:**
The Messenger occasionally queries the social cloud for the social data on behalf of the mobile user and pre-processes the data into a light-weighted format plain text files at a much lower frequency. The plain text files are asynchronously delivered from the surrogate to the user in a traffic-friendly manner i.e. little traffic is incurred. In the reverse direction the messenger distributes this user’s messages invitations and chat messages to other users via the data store of the social cloud.

**GATEWAY:**
The gateway provides validation services for users to log in to the CloudMoV system and stores users credentials in a permanent table of a MySQL database it has installed. It also stores information of the pool of currently available VMs in the IaaS cloud.
in another in-memory table. After a user productively logs in to the system, a VM surrogate will be assigned from the pool to the user. The in-memory table is used to assure small query latencies since the VM pool is efficient frequently as the gateway reserves and destroys VM instances according to the current workload. In addition the gateway also stores each user’s friend list in a plain text file in XML formats which is straight away uploaded to the surrogate after it is assigned to the user.

**SUBSCRIBE:**
In this module user can download the video. Subscribe module download video in high speed and clear video streaming. Authorized user every one download and watch the videos.

**EXPERIMENTAL RESULTS:**

**CONCLUSION:**
I establish a generic and portable mobile social TV framework, CloudMoV, that makes use of both an IaaS cloud and a PaaS cloud. The framework provides efficient transcoding services for most platforms under various network conditions and supports for co-viewing experiences through timely chat exchanges among the viewing users. By employing one surrogate VM for each mobile user, we achieve ultimate scalability of the system. Through an in-depth investigation of the power states in commercial 3G cellular networks, we then propose an energy-efficient burst transmission mechanism that can effectively increase the battery lifetime of user devices. I have implemented a realistic prototype of CloudMoV.

**REFERENCES:**


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