



Spontaneous Social Interactivity through Cloud Based Battery Efficient Mobile Social TV

Ansu P Elsa Thomas, Sonu Shaji, Deepa Merin Jose
Dept. of Computer Science, MGU
Kerala, India

Abstract: The rapidly increasing power of personal mobile devices is providing much richer contents and social interactions to users on the move. This trend however is throttled by the limited battery lifetime of mobile devices and unstable wireless connectivity, making the highest possible quality of service experienced by mobile users not feasible. The recent cloud computing technology, with its rich resources to compensate for the limitations of mobile devices and connections, can potentially provide an ideal platform to support the desired mobile services. Tough challenges arise on how to effectively exploit cloud resources to facilitate mobile services, especially those with stringent interaction delay requirements. In this paper, we propose the design of a Cloud-based, novel Mobile social TV system.

Keywords: TV

I. INTRODUCTION

Social television is the union of television and social media. Millions of people now share their TV experience with other viewers on social media such as Twitter and Facebook using smartphones and tablets. The result is a massive and rapidly expanding real-time focus group and promotional force. The social TV market covers the technologies that support communication and social interaction around TV as well as companies that study television-related social behaviour and measure social media activities tied to specific TV broadcasts. The term mobile TV typically refers to the delivery of video content to cell phones, including the carriers' packaged subscription services like VCast and premium mobile Web services like MobiTV, or more recently, mobile versions of online video services like YouTube.

Cloud computing is a concept used to describe a variety of computing concepts that involve a large number of computers connected through a real-time communication network such as the Internet. Many mobile social or media applications have been launched recently, but most popular apps like Facebook, Twitter, have large demand among users. But there are some limitations in the current mobile and wireless technologies, in which battery lifetime and unstable connection bandwidth are some of the problems. Cloud computing provides low-cost, agile scalable resource supply and power efficient mobile communication. Cloud can reduce load of computation and other tasks which is involved in a mobile application. This significantly reduces battery consumption of the mobile devices.

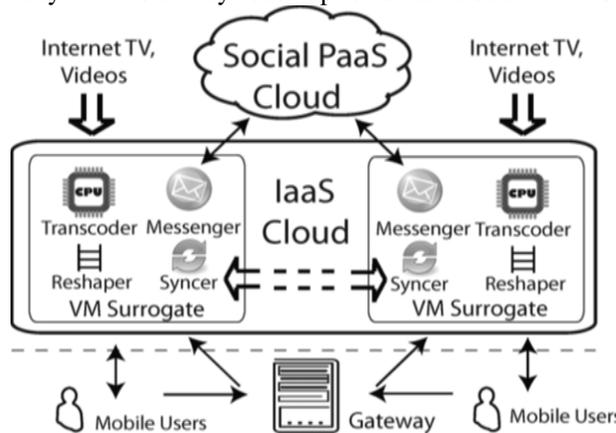


Fig: Architecture of Cloud Move

II. SYSTEM ANALYSIS

System analysis is the process of gathering and interpreting facts, diagnosing problems and using the facts to improve the system. Analysis is a detailed study of various operations performed by a system and their relationship within and outside of the system. This involves gathering information and using structured tools for analysis. System analysis is the way of studying and studying a system with an eye on solving its problem-using computer. To analyze a system one has to study the working of the system in detail. The system analyst has to understand the functioning and concept of the system in detail, before designing the appropriate computer based system that will meet all the requirements of the existing system.

III. EXISTING SYSTEM

A number of mobile TV systems have sprung up in recent years, driven 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.

IV. PROPOSED SYSTEM

We propose 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 offer the living-room experience of video watching to a group of disparate mobile users who can interact socially while sharing the video. To guarantee good streaming quality as experienced by the mobile users with time varying wireless connectivity, we employ a surrogate for each user in the IaaS cloud for video downloading and social exchanges on behalf of the user.

V. CONCLUSION

We conclude results prove the superior performance of CloudMoV, in terms of transcoding efficiency, timely social interaction, and scalability. In CloudMoV, mobile users can import a live or on-demand video to watch from any video streaming site, invite their friends to watch the video concurrently, and chat with their friends while enjoying the video.

REFERENCES

- [1] CloudMoV: Cloud-based Mobile Social TV”,IEEE Transactions on multimedia,2013
- [2] Watching Together: Integrating Text Chat with Video,2007
- [3] Exploring Social TV-ITI 2007 29thInt.Conf. on IT interfaces.
- [4] A Survey on Peer to Peer sharing using Cloud based Mobile Social TV(Cloud MoV),IEEE 2014
- [5] QOE Enhanced Social Live Interactive Streaming, IJRET 2014
- [6] An Architecture for Distributed High Performance Video Processing in the Cloud, IEEE INFOCOM,2012