SECURED SOCIAL TUBE FOR VIDEO SHARING IN OSN SYSTEM

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ABSTRACT:

Recent years have witnessed the blossom of online social network service and online video service as well as the rapid convergence of the two services. Social video contents or social videos in short that is generated and shared by users in online social networks are becoming increasingly popular on today's Internet. It is fascinating to study how the social video contents can be served to users with satisfactory Quality-of-Experience (QoE). In the online social network, users create and maintain different social connections, e.g., finding their friends in real life, following famous person or still liking effective social entities. Such social connections determine which videos can reach a user in the online social network. The unique propagation properties make the video access pattern in the online social network quite different from that in the traditional centralized video service systems, in that (1) video contents are no longer produced by a few centralized content providers, but by all individual users; and (2) social connections and social activities determine the propagation of the videos among the users. So we proposed Secure Social tube, an improved peer-assisted video sharing system that explores interest similarity, physical location and social relationship between peers in OSNs. Specifically, SsocialTube incorporates four algorithms: a social network (SN)-based a buffer management algorithm, scheduling algorithm, chunk delivery, a SN-based chunk prefetching algorithm and P2P overlay construction algorithm. Our framework can be implemented in real world environments.

KEYWORDS: *online social networks, peer-to-peer network,*

1. INTRODUCTION:

The popularity of online social networks (OSNs) in recent years is continuously increasing. Facebook (FB), in particular, is one of the most important online social networks (OSNs) today. It has the highest number of active users with more than half active FB users returning daily and the largest number of visitors among OSNs according to Comscore. OSN users establish friendship relations with real-world friends and post their profiles and content such as notes, photos, and videos to their private

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pages. Video sharing has been an increasingly popular application in OSNs, enabling users to share their interesting videos they found with their friends.

Different approaches for peer assisted video sharing in online social networks are: NetTube, SocialTube, etc. OSN based P2P streaming overlay, where social relationships are exploited to develop a privileged video content distribution mechanism among peers that are also OSN members. The user who have account in the online social networks they want to upload there videos on the networks and share it with other members who have account in that network. The other persons who have relationship with they are friends of the user want to view the shared video they will wait for the video for buffering. To avoid this problem in the proposed the user upload the video on the social networks the video upload on the socialtube automatically. So the other user can view the video easily without waiting for buffering.

2. RELATED WORK:

In [4] Y. Huang, Z. Fu, D. Chiu, C. Lui, and C. Huang et al. In this paper, we describe and discuss the challenges and the architectural design issues of a large-scale P2P-VoD system based on the experiences of a real system deployed by PPLive. More recently, the interest has turned towards a new kind of service, P2P video-on-demand (P2P-VoD). Based on a detailed analysis of a current client-server VoD system at Microsoft, it was pointed out in that P2P-VoD could bring significant savings in server loading. These P2P-VoD systems are already enjoying a large viewer population. we conduct an in-depth study of P2P-VoD based on a real-world P2P-VoD system built and deployed by PPLive in the fall of 2007. This general model serves to provide a framework and taxonomy for studying different design issues in a P2P-VoD system. We discuss metrics for evaluating a P2P-VoD system, and how to instrument the measurement in a real-life system. Real-life measurement data were collected from the deployed PPLive VoD system. In this paper, we present a general architecture and important building blocks of realizing a P2P-VoD system.

In [5] B. Cheng, L. Stein, H. Jin, X. Liao, and Z. Zhang et al. This article explains the evaluation, design and implementation of GridCast, a real deployed P2P VoD system. In this article, we measure GridCast and explore how to improve peer sharing by using caching and replication. The basic idea behind GridCast is to enable peers to share with each other and offload the server.

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In GridCast, video files are segmented on time rather than space. Tracker server is a well-known rendezvous for joining peers. Peers fetch chunks from sources or peers and cache them in local memory and disk. Join. To in the system, the peer notifies the tracker of its existence. When a user leaves the system, the peer notifies the tracker and its neighbors and then closes all its TCP connections. Start. Users select a video to start a session. Play. To play continuously, the peer performs two tasks; fetching from the network and feeding to the media player. Pause. On a pause, the scheduler continues to fetch data from other peers and provide data to other peers, but the media server stops sending chunks into the player. Seek. On a seek, the peer moves the playhead to the target location, coordinate with the tracker for a new candidate list, then activates the scheduler to satisfy the new data requirements. This article first presents the basic design of a live P2P VoD system, namely GridCast, and then evaluates its performance through the data trace collected from the initial deployment.

3. SOCIALTUBE:

In an online social network, contents spread among users by their social activities. A number of research efforts have been devoted to studying the propagation of information in online social networks. Video sharing has been an more and more well-liked application in online social networks (OSNs).

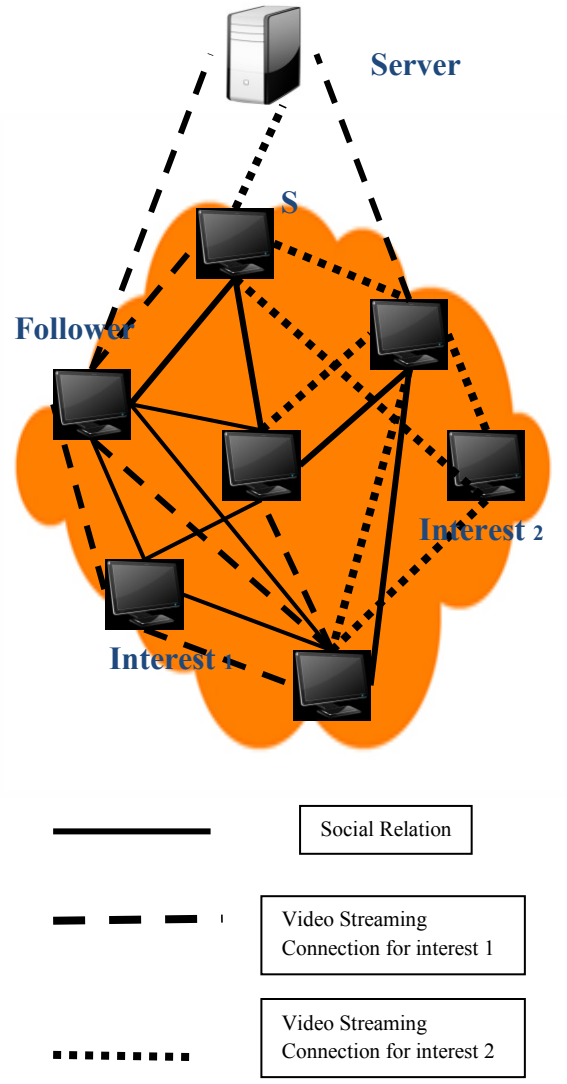

Figure 1: Structure of SocialTube

However, its sustainable development is severely hindered by the intrinsic limit of the client/server architecture deployed in current OSN video

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systems, which is not only expensive in conditions of server bandwidth and storage but also not scalable with the soaring amount of users and video content. The peer-assisted Video-on-Demand (VoD) method, in which share peers help the server in delivering video content has been proposed lately. Unluckily, videos can only be dispersed through friends in OSNs. As a result, present VoD works that find clustering nodes with similar interests or close location for high performance are suboptimal, if not entirely inapplicable, in OSNs. Apply breadth-first-search to keep away from overloading the Face book in existing system. The bandwidth and storage load on video servers for providing video services is high and has been increasing at a rapid rate. Time delay is very high, when we watching videos in social network.

4. SECURED SOCIALTUBE:

Online social networks (OSNs) (e.g., Facebook, Twitter) are now among the most popular sites on the Web. An OSN offer a influential means of establish social connections and sharing, organizing, and finding content. Unlike current file or video sharing systems (e.g., BitTorrent and YouTube), which are mainly organized around data, OSNs are prepared approximately users. OSN users establish friendship relations with real-world friends and post their profiles and content such as notes, photos, and videos to their private pages. Video sharing has been an increasingly popular application in OSNs, enabling users to share their interesting videos they found with their friends.

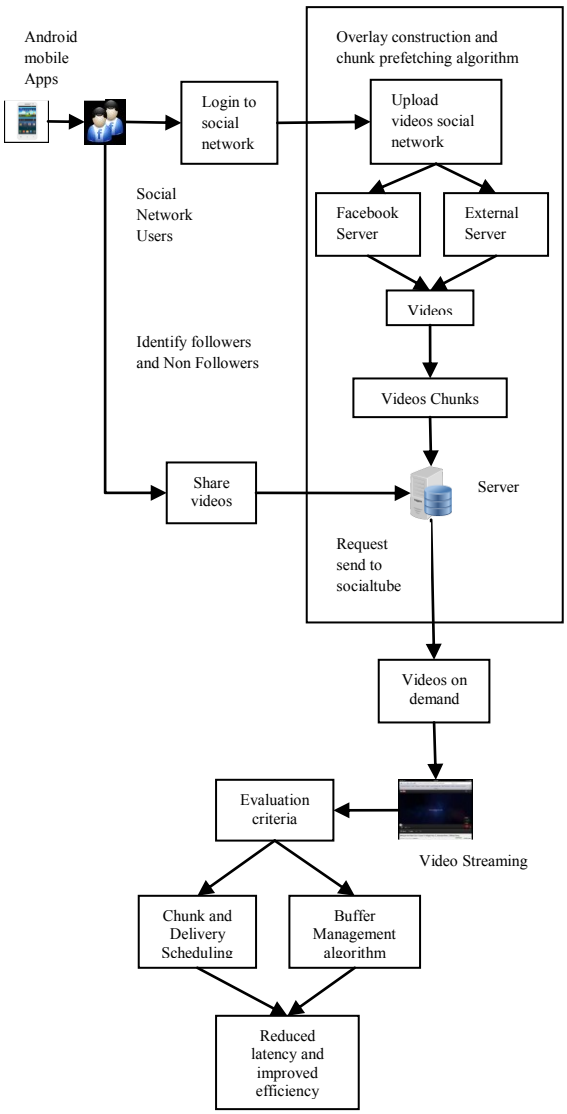

Figure 2: System architecture

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So we are improving the client/server architecture for video sharing, with the peer-to-peer (P2P) architecture being the most hopeful. P2P-based video division has been utilized in on demand video streaming. With each peer contributing its bandwidth to serving others, the P2P architecture offers high scalability for large user bases. Proposed system enabling the possibility for P2P video sharing among the online users. To reduce the video establish latency, we suggest a push based video prefetching mechanism in SocialTube. To provide the video content in order to guarantee provider availability and achieve low delay by retrieving chunks in parallel.

5. EXPERIMENTAL RESULTS:

In this experiments find the upload and download bandwidth of the video in the socialtube and secured socialtube. The comparison table and comparison graph is shown below.

Methods	upload bandwidth	download bandwidth
SOCIALTUBE	456	128
SECURED SOCIALTUBE	795	432

Table1: Comparison table

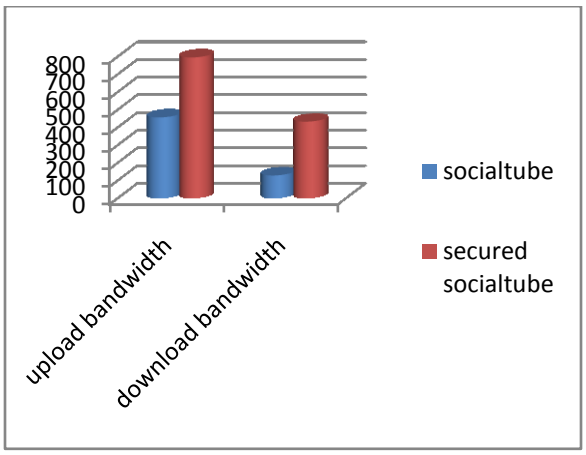

Figure 3: Comparison graph

6. CONCLUSION:

Our measurement reveals that most of the viewers of a user's videos are the most video views, user's close friends are determined by social relationships, and the remaining are determined by interests, and watchers of the similar video be likely to exist in the similar location. Based on our comments, we suggest Social Tube, a scheme that discovers the interest similarity, social relationship and location to improve the performance of video sharing in OSNs. Particularly, an OSN has a social network (SN)-based P2P overlay construction algorithm that clusters peers based on their social relationships and interests. Within every cluster, nodes are linked by virtue of their physical location in order to reduce video transmission latency. Social Tube also incorporates a SN based chunk perfecting

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algorithm to minimize video playback startup delay. A novel P2P assisted video sharing system in online social networks, which provides efficient P2P assisted video sharing's services. Extensive simulation results show that it can provide a low video start up delay and low server traffics demand. In future implement this socialtube framework in security manner. Avoid unwanted shared videos in Online social network using video content features and also eliminate the redundant video shared on network.

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