

new instances extremely quickly depending on system load without having to worry about server differences or initial setup procedures.

5 CONCLUSIONS AND FUTURE WORK

The introduced work had many successes within the distributed domain. The synchronisation running through a centralised source could be critically evaluated as a bottleneck, however, due to the fundamental distributed nature of the cloud server, the effects of a processing power bottleneck are minimised due to the pure power of the server. Future implementations may wish to address this as bandwidth concerns are paramount, or larger amounts of data are needing to be sent, one solution could be to implement a peer-to-peer mechanism to aid in synchronisation and reduce the necessity and reliance on a centralised service.

An experimental addition was also implemented to allow a desktop platform to run a local server to allow second screen devices to synchronise together and allow a group to partake in interactive video streams when either not connected to the Google App Engine or when bandwidth constraints prevented devices synchronising effectively. This addition could be expanded to include a peer-to-peer aspect and allow users to synchronise playback times directly without going through the Google App Engine. This would mean that a mesh network would be created to facilitate in synchronisation, but all data relating to interactive features would still be pooled on the server to allow a global authoritative source to ensure all peers have the same data on their peers.

The DVP framework is successful in providing a mechanism to provide distributed synchronised viewing of videos on the Internet, and with the aid of the LIMO framework can provide viewers with the opportunity to interact with other users joining them in the video streaming session. The evaluation of the system has also shown us the strengths and weaknesses of the system and how we can improve on these if the framework is continued and expanded upon.

The DVP framework could also be refocused for other types of applications. The possibilities for this type of application are endless, and some ideas may include remote management and communal Internet activities such as gaming, or more interactive social networking paradigms.

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