Abstract

In this paper we evaluate Collaborative Virtual Environments (CVEs) in terms of network latency. Network Latency main requirements, given in the literature for CVEs, have been summarized. We also discuss effects of network latency on users' performance in the CVEs. Different factors can improve, by minimizing overall network latency, the performance of users in the CVEs. This review provides a comprehensive inside look to network latency in the CVEs and will help the researchers to adopt a network, with minimum latency, for their CVEs. The algorithms and ideas, suggested by the researchers, to be adopted by the CVEs to minimize network latency in virtual environment, are also discussed critically. Reducing network latency will ultimately improve the overall efficiency of CVEs.

References

2014.


19. C. Gunn, M. Hutchins, D. Stevenson, and M. Adcock. “Using collaborative haptic in remote surgical training”. In world HAPTICS First Joint Eurohaptics Conference and Symposium on Haptic Interfaces for Virtual Environment and Teleoperator Systems, pages 481–482, Pisa,
Optimal Latency in Collaborative Virtual Environment to Increase User Performance: A Survey


33. Vaghi, I., C. Greenhalgh, and Benford. “Coping with Inconsistency due to Network Delays in Collaborative Virtual Environments”. In Proceedings of the ACM Workshop on Virtual Reality and Software Technology


40. “Design best practices for latency optimization financial services technical decision maker”, 'white paper”.

Optimal Latency in Collaborative Virtual Environment to Increase User Performance: A Survey

Carolina, USA, 2007.

42. http://www.searchnetworking.techtarget.com/definition/propagation-delay, 11 July 2013


76. Krumm-Heller, A. & Taylor, S. “Using determinism to improve the accuracy of dead


Index Terms

Computer Science

Information Sciences

Keywords

Collaborative Virtual Environment, Network Latency, Multimedia, Synchronization, Consistency, Throughput.