Abstract

An overlay network comprises overlay nodes that are responsible for routing and forwarding, connected by overlay links that correspond to paths in the underlying network. The end-nodes in overlay networks are highly connected to each other due to flexible routing. This architecture have two major components; overlay nodes with virtual links, and the native layer over which the overlay network is built, and ensure performance and availability of internet routing, multicasting, QoS guarantees. This paper complements the current research on routing in Ad hoc network by proposing a new protocol EADOV. The performance of various routing protocol in mobile wireless network for UPD-based application are measured. Network Simulator NS2 on Fedora environment is used for simulation which included two mobile nodes with four types of traffic VoIP, video, CBR and FTP for creating heavy load and to simulate the protocols. QoS based performance metrics (PSNR, throughput, frame losses end-to-end delay, bandwidth utilization and Error-Resilience for both sender and receiver) under different scenario has been done and results are compared for both existing and proposed routing algorithms. Better average PSNR, throughput, minimum end to end delay and less I frame (the main key frame in video which neither regenerated at destination) losses are achieved compare to AODV. Received video was also compared for both algorithms, the EAODV give better output and more good quality frames than AODV.
QoS based Performance Analysis of EAODV Protocol in Overlay Network

References

Index Terms

Computer Science

Networks
Keywords

AODV  EAODV  CDN  CBR  P2P  VoD.  VoIP