Abstract

In TCP/IP suite transport layer protocol Transmission Control Protocol (TCP) was initially used for secure connection-oriented host-to-host transmission of the packet over wired networks. When this TCP is implement over wireless mobile networks environments, its leads to reduced throughput. It has been observed that when the wired TCP is apply in wireless environments, problems are not always due to network congestion state, but rather they are mostly because of high bit error rates, frequency of route failure, and topological network changes. Researchers have suggested a solution to inset a layer employment, a new layer between network and transport layer called ATCP (ad-hoc TCP). ATCP works over the sender node only and assuming that the sender node being always reachable: which is not always possible to meet in wireless mobile networks environments. Authors proposed an approach based on the local route request (LRREQ) packet, which is capable of mitigating ATCP, the assumption is that the sender node is always in the reachable state as well as intermediate link failure, which is also repaired with LRREQ mechanism.
References

12. Xinming Zhang, Jun Lv, Xiaojun Han, and Dan Keun Sung, “Channel efficiency-based transmission rate control for congestion avoidance in wireless ad-hoc networks”, IEEE communications letters, vol. 13, no. 9, 2009

Index Terms

Computer Science
Networks
Keywords

TCP; Wireless Networks; Congestion Control; Mobility; Mobile Ad-hoc.