Abstract

Mobile phone generally use singlepath-TCP protocol when sending data, but in a high number of packet loss the throughput obtained decreases. There are many activity and development to increase throughput on mobile phone, Multipath Transmission Control Protocol (MPTCP) is a system that can increase the throughput, MPTCP can exploit the connection between wireless interfaces to tranfer data. In theory MPTCP throughput is better than TCP throughput. To solve this problem on singlepath-TCP, we use redundant MPTCP method that every TCP packet will be sent on path provided from MPTCP. With simulation, it's been proven this scheme can fix the peformance of TCP when receiving data in high loss. MPTCP throughput result increased significantly 7.45 Mbps while Wi-Fi 3.28 Mbps and LTE 1.74 Mbps.

Keywords: MPTCP, LTE, Wi-Fi, Packet Loss, Throughput