Wi-TCP: A TCP in Wireless Environment

Abstract

Due to the strong drive towards wireless Internet access through mobile terminals, it has become necessary to carefully handle the issues in the wireless environment such as frequent handover/handoff (user mobility), temporary disconnection, burst error and fading. These characteristics of wireless environment deteriorate the performance of wireless systems sharply in terms of TCP throughput as TCP is basically designed for wired networks to provide reliable delivery by using congestion control and error control mechanisms. In mobile IP based network, mobility plays an important role as handover issue makes negative impact on system performance and to enhance the behavior of TCP during handoff, a novel scheme is proposed. Wi-TCP is a new wireless end to end transmission control protocol, designed to support the TCP handoffs in mobile IP based network by utilizing the basic features of Mobile IP, Route Optimized Mobile IP and TCP.
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Index Terms

Computer Science
Wireless

Keywords

Wi-TCP (Wireless Transmission Control Protocol) EHO-ACK (Exclusive Handover Acknowledgement) EHC-ACK (Exclusive Handover Completion Acknowledgement)

HF_H (Home Agent to Foreign Agent Handover)

FF_H (Foreign agent to Foreign Agent Handover)

FH_H (Foreign Agent to Foreign Agent Handover)