Abstract

The widespread use of internet services over the wireless links is expeditiously grown in recent years. The reinforcement of portable computing platform and technological elevation of wireless communication evokes substantial prosperity in the design and development of integrated environment such as cellular mobile environments. The repercussion of packet losses due to
corruption and mobility is the radical circumstances of deteriorating TCP performance in the wireless ambience. Uniform and Multistate error model are both used in wireless environment; Uniform error model provides packet losses at a constant rate which consequence an imprecise results during simulation as in wireless environment packet losses are arbitrary, bursty and time diversify in nature. However Multistate error model imitates the behavior of the wireless packet loss in real environment and produce infallible outcome. In this paper we constitute a realistic Cellular Mobile Environment by considering multistage error model in the design of wireless packet losses. Mobility in structure is also conceived to estimate the actual performance of TCP. Moreover the behavior of TCP Tahoe, Reno, New Reno, Sack and Vegas in Cellular Mobile network is simulated to perceive the impact of wireless link on the behavior of these TCP variants. Finally from the result of our simulation we conclude the best TCP variants for different circumstances.

Reference

- NS, The net simulator – ns-2., URL:http://www.isi.edu/nsnan/ns

Index Terms

Computer Science

Wireless Communications
Key words

Multistage Error Model  
Simulation Scenario  
High

Bit error

handoff and speed