IMPROVING TCP PERFORMANCE WITH FORWARD ERROR CONTROL IN WIRELESS LOCAL AREA NETWORKS

This project report is presented in partial fulfillment for the award of the Bachelor

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ABSTRACT

This project investigate, the performance improvement of applying the Forward
Error Control (FEC) for IEEE 802.11b Wireless LAN standard. In the IEEE 802.11b
standard, bit error was introduced through the channel noise using Cyclic Redundancy
Check (CRC) error protection packet loss could be reduced. Reliable end-to-end
connection is provided through higher layer protocols such as TCP, whose performance
is severely degraded by the bit error rate in the channel. Network performance was
evaluate using two different approaches of FEC implementation, Reed Solomon code,
and Turbo code over TCP Wireless LAN.

From the OPNET simulations, can be concluded that both implementations reduce the
packet loss and the congestion in the network.

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