Abstract

Since the congestion problem is prevalent in transport, data link and network layer in Mobile Ad hoc networks, a cross layer based congestion control technique is necessary to overcome
the congestion problem. In this paper, we propose a cross-layer based technique to overcome congestion that occurs in MAC and transport layer in MANET. The proposed technique is applied over a Ad hoc On demand Multipath Reliable and Energy Aware QoS Routing Protocol (AOMP-REQR). The technique of additive increase and multiplicative decrease (AIMD) is applied for rate based congestion control of transport layer protocol. If source receives congestion status information from both MAC and transport layer simultaneously for the same route, then congestion free route will be established for transmission, without performing rate control. By simulation results, we show that the proposed technique attains more packet delivery ratio with less packet drop and reduced delay.

References


- Network Simulator , http://www.isi.edu/nsnam/ns


**Index Terms**

- Computer Science
- Wireless

**Keywords**

- AIMD
- Congestion
- Cross layer
- Energy
- Reliable
- Routing