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MW200518

Quality of Service Aware Routing Protocol for Mobile Ad Hoc Networks.

ABSTRACT

Routing protocols for mobile ad hoc networks (MANETS) have been explored extensively in recent years. The growing use of multimedia applications and the small degree of tolerance these applications demands design and development of ad hoc reactive routing protocols with quality-of-service, QoS support. Much of this work is targeted at finding a feasible route from a source to a destination without considering current network traffic or application requirements. Therefore, the network may easily become overloaded with too much traffic and the application has no way to improve its performance under a given network traffic condition. While this may be acceptable for data transfer, many real-time applications require quality-of-service (QoS) support from the network.

So such QoS support can be achieved by finding a suitable route to satisfy the real-time application requirements. I proposed QoS-aware routing protocol that incorporates an admission control scheme to meet the QoS requirements of real-time applications. The novel part of this QoS-aware routing protocol is the use of the approximate current bandwidth capacity estimation technique to react to network traffic. So based on this approach I implemented the QAODV routing protocol by using bandwidth estimation method to find the bandwidth available at each node to support new streams. The implementation of the QoS-aware AODV routing protocol is done in the Network Simulator 2.