ABSTRACT

An ad hoc network is a collection of wireless mobile host forming a temporary network without the aid of any established infrastructure or centralized administration that has dynamic topologies characteristics. Every node in network can be act as a host and router forwarding the packet to the other node. That's why needed routing protocol.

Ad hoc network Qos (Quality of service) is affected by routing protocol works. With dynamic topology as the basic of this network made a problem at routing. This happened because the topology easily change with higher mobility will cause more computation at every node for storage, memory consume, CPU processing, and power consume.

TORA (Temporally Ordered Routing Algorithm) is one of ad hoc routing protocol which has multiple route so the data packet can be send through the different path from the source to the destination. It has good performance when higher mobility and the network become large. This final project simulates and analyze the effect of TORA to route the data packet with performance parameter throughput, delay, packet delivery ratio and route overhead.

The result show that *Throughput* and *Packet Delivery Ratio (PDR)* increase when the mount of node bigger when using TORA protocol. The biggest throughput is got by CBR traffic rather than Exponential and Pareto traffic when speed become high (5 m/s, 20 m/s). The biggest Packet Delivery Ratio (PDR) got by Exponential traffic rather than two other types.

Keyword : TORA, QoS, Adhoc