Abstract

Wireless network topology is divided in two kinds, those are infrastructure mode and infrastructure regardless mode. Infrastructure mode has fixed gateway and between gateways are connected with wire media. This topology has several base stations which is fixed connected with wire media. Infrastructure regardless mode which is often called ad hoc mode has no fixed router and all of the nodes in this network could move freely and also can be connected dynamically in every situation. Thus, it can be said ad hoc network topology has a changeable topology according to the movement of the nodes in the network. Basic characteristic in ad hoc network is dynamic topology which evokes problem in routing case. One routing method used in ad hoc network is the reactive ad hoc routing protocol. In this research, there will be a simulation of AODV and TORA routing protocol using network simulator 2. Performance evaluation of both routing protocol is reviewed from metrics : delay, packet delivery fraction, and throughput with the number of node parameter, node movement speed and pause time. Based on analysis obtained that TORA has better performance than AODV because TORA uses multiple route in packet delivery that has advantages to handle network changes, whereas AODV only uses a single route in packet delivery.

Keywords : Ad Hoc Network, *reactive routing protocol*, AODV, TORA,and NS2