

Abstract

Ad Hoc Network is a network which is consisted of a group of wireless mobile node which communicate each other without permanent infrastructure. The main characteristic of an Ad Hoc Network is able to organize itself as an end user and router functioning to continue data to other node. Topology of an Ad Hoc network changing according to the movement conducted by each node. Each node in an Ad Hoc network is free to make a move where and any time it willing to. Because of the changing of the network condition, routing become one of important matter of Ad Hoc network. One of most used routing method in Ad Hoc network is reactive routing protocol . There are two most often used methods of reactive routing protocol nowadays, they are Ad Hoc On Demand Distance Vector (AODV) and Dynamic Source Routing (DSR). In this paper those two reactive routing protocols are simulated in some Ad Hoc network conditions using Network Simulator 2. Result of the simulation analysis proves that DSR is better when there are a few nodes in small network size and the network tends to be static, on the contrary AODV is better when there are many nodes in complex big network size and the network tends to be dynamic. Performance measure of interests that are used in evaluating AODV and DSR are : packet delivery fraction, normalized routing load dan average delay convergency.

Keywords : Ad Hoc Network, *reactive routing protocol*, DSR, AODV, and NS-2