
ABSTRACT

Mobile Ad hoc Network is a group of mobile host that can build temporary network wirelessly in which all node in the network connected each other through wireless link without any infrastructure or centralized administration. This kind of network has dynamic, random and multi hop topology that consist of wireless links with very limited bandwidth.

Most of routing protocols used in ad hoc network only use one path as best path to communicate and sending packets each other so it influence to throughput and security itself, eventhough during route discovery process the protocols found more than one paths from source node to destination node.

Multipath routing has been proposed and implemented in packet switch networks and circuit networks. Ad hoc On-demand Multipath Distance Vector (AOMDV) is an extension of Ad hoc On-demand Distance Vector (AODV) that has the ability to find multiple paths to reach destination node and use those paths as alternative route or use those simultaneously.

In this final task will discuss and analyze about AODV-based multipath routing in mobile ad hoc network. An NS2 simulation will be used to reach this goal. The scenarios will be written to analyze the effect in using multipath routing protocol compare to AODV and DSR routing protocol, the effect of mobility to each routing protocols and the effect of number of nodes to each routing protocols.

Keywords : Wireless, Mobile Ad Hoc Network (MANET), Multi-path Routing, AODV, DSR, AOMDV, Simulation, NS2.