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 . It is caused routing problems that the conventional routing does not design in such dynamic topology. Conventional routing like RIP and OSPF also caused wastes of bandwidth, CPU resource, memory, storage, and battery power.

The node in an ad hoc network can consist of Personal Digital Assistants (PDA) and laptops and are often very limited in resource such as CPU capacity, memory capacity, battery power, and bandwidth. This mean that the routing protocol should try to minimize the control traffic, such as periodic update message. Instead the routing protocol must be reactive, thus only calculate route upon receiving a specific request.

In this finally task, to simulate and Analyze a performance comparison of Reactive Protocol (AODV) and Proactive Protocol (DSDV) in ad-hoc wireless network routing protocols, such as : Throughput, Loss Packet Ratio, and overhead In Ad hoc network. This evaluation is done by means of simulation using Network Simulator 2 (NS-2).This final assignment simulate how routing mechanism in wireless ad hoc network based on 802.11 wireless LAN which using AODV and DSDV protocol that have different characteristic both mobility and scalability. The key feature of AODV and DSDV is the use of source routing that the sender knows the complete hop-by-hop route to the destination. The data packets carry the source route in the packets header.

The simulation have shown that AODV perform very well on routing overhead and throughput when mobility is high. In the otherhand , the routing protocol based on table driven routing like DSDV decrease in performance when mobility is high.