Abstract

Wireless Sensor Network (WSN) is a collection of sensors that are arranged into a network . In order for the sensor nodes can communicate well , then it is necessary that proper route selection . Thus the information will arrive quickly and accurately . Wireless ad - hoc protocol routing is considered suitable for WSN due to the topology dynamic and operate with limited energy .

There are two models with different properties of the wireless ad - hoc protocol routing , namely Ad Hoc On Demand Distance Vector (AODV) which is reactive and Destination Sequenced Distance Vector (DSDV) proactive . This research analyzes the comparative performance of the two protocols wireless ad - hoc routing with the two different properties . Comparative analysis is done through simulations using the Network Simulator 2 (NS - 2:35) berstandarkan IEEE 802.15.4 (ZigBee) with scenario changes the number of nodes , as well as increasing the number of active nodes simultaneously ZED.

Simulation is performed at the exchange of data packets between nodes with parameters such as delay , throughput , routing overhead and energy consumption . By looking at the results of the simulation of the four parameters was found that the AODV routing protocol is superior in every parameter . Characterized by a more stable delay when faced with traffic congestion , better throughput , routing overhead and energy consumption smaller fewer than DSDV , the routing protocol that is more suitable to be applied in WSN is AODV

Keywords: Wireless Sensor Network, AODV, DSDV, NS-2.