Abstract

The use of wireless communication is huge. Wireless communication is preferred because it can be used for mobile devices. One use of wireless communications is on the vehicle, or better known as the vehicular Ad Hoc Network (VANET). VANET has rapidly changing network characteristics, because the rapid movement of nodes. Therefore we need the appropriate routing protocol.

Ad Hoc routing protocols on Demand Distance Vector (AODV) and Dynamic Manet On Demand (DYMO) is a reactive routing protocol. AODV is often recommended for a routing protocol in VANET. While DYMO is modified AODV and often used in Mobile Ad hoc Network (MANET). Simulations using NS2.34 with 2 main scenarios, namely in the city (urban) and the freeway (highway) without the use of Road Side Units (RSU). Each scenario was tested with different number of nodes. For urban 25, 50 and 100 nodes.

Performance of the routing protocol parameters measured by throughput, packet delivery ratio, routing overhead, normalized routing load and delay. In the urban scenario of 100 nodes obtained values on the AODV routing overhead at 1046.9388 *and* 474.036 *for DYMO. While the packet delivery ratio of AODV and DYMO 91.05% dan 45.63%*

Keywords: VANET, urban, highway, RSU, DYMO, AODV, throughput, packet delivery ratio, routing overhead, normalized routing load, delay, NS-2.