ABSTRACT

Delay Tolerant Network (DTN) is a wireless network that is connected intermittently, nodes that communicates can not determined the timed and have a dynamic topology due to node always mobile. In DTN to design routing protocol is a challenges, because in the absence of end-to-end path to send the message. To solve this problem there is a routing protocol dLife, that uses two utility functions TECD and TECD importance (TECDi) to make forwarding decisions. dLife routing protocol is a classification of opportunistic routing based on messages replication, that take advantage of social interaction based on daily routines.

In this final project analyzed the influence of Time to Live (TTL), buffer size, message size and transmit range with the performance parameter are delivery probability, overhead ratio and average latency with routing dLife which modeled on the Faculty of Electrical Engineering Telkom University. To modeling of node movement in order to appropriate the real condition used the shortestpathmapbasedmovement with a Point of Interest (POI) and stationary movement. Simulations using Opportunistic Network Environment (ONE) Simulator 1.4.1.

Based on simulation results showed that overhead ratio increased due to the increase TTL, message size and transmit range, decreases when the increase in buffer. Delivery probability and average latency increases due to the increase TTL, buffer and transmit range, decreases when the increase in message size.

Keywords: Delay Tolerant Network, dLife*, delivery probability, average cost, average latency*