

ABSTRACT

Wireless ad hoc network is a collection of nodes wireless mobile that dynamically existence without the use of the existing infrastructure or centralized administration. In the ad hoc wireless network there are some problem arises that such are the effect of the number of nodes, the effect of the movement of the nodes, and the effect of the size of packets are sent thus causing the performance of data transmission are degraded.

Those problems can be minimized by using a method of queuing data. In this case the researchers used two methods of data queuing that are PFIFO Fast and RED. Both methods queues are implemented using routing protocols BATMAN on software based Linux, which is then analyzed its performance using Simple Adittive Weighted Method (SAW). The process of sending and receiving traffic on the system using Distributed Internet Traffic Generator (DITG). This implementation involves four nodes and performed in three conditions, in example all nodes in the idle state (fixed), moving static of the receiver node, and moving static of the sender node.

From the results of the implementation of ad-hoc networks using both types of methods queue data thoroughly under three conditions (condition 1, condition 2, condition 3) show that the RED method can be expressed better than PFIFO Fast method, the average value The average V for RED = 29.145 while V for PFIFO Fast = 25.073.

Keywords: *Wireless ad-hoc, PFIFO Fast, RED, BATMAN, SAW, DITG*