

ABSTRACT

Mobile Ad hoc Network (MANET) is a collection of mobile nodes which process the exchange of information via a wireless transmission medium . To perform the communication process each node requires other nodes as a "bridge" so that the nodes in the MANET can act as a terminal and a router. MANET which characteristic is mobile causes many challenges to be faced by MANET such as the influence of the number of nodes, the effect of speed of movement of the mobile nodes, and the influence of large size packets. It causes increased packet delay and throughput impairment. This resulted in increased packet load and its performance also declined. Then it must be scheduled on the traffic.

This Final Project analyzes scheduling algorithm influence on Mobile Ad hoc Network (MANET). Scheduling algorithm in this simulation are *Smoothed Round Robin* (SRR) and *Deficit Round Robin* (DRR), which used routing protocol Ad Hoc On Demand Distance Vector (AODV) dan Destination Sequence Distance Vector (DSDV) by using software NS-2.34 on triple play services, such as data, video and voice.

The result of this research is the comparison of the performance of both SRR and DRR scheduling algorithm that uses the AODV and DSDV routing. SRR algorithms provide better performance for voice and data services, and DRR algorithms have better performance for video services. As for the case of background traffic SRR algorithms provide better performance for all three services compared to DRR. From the research also found that better performance is generated by both algorithm SRR and DRR using AODV routing, where the value of the resulting packet loss is 0, to the number of nodes to 20 idle and speed of 1 m / s. For the case of the buffer length, SRR algorithm is better for voice and data services and DRR algorithm is better for video. In the case of fairness index, fairness index of data service is smaller than the video and voice for both algorithms.

Keywords : MANET, routing, scheduling, AODV, DSDV, DRR, SRR.