

ABSTRAK

The thriving wireless technology now days is Mobile Ad Hoc Networks (MANETs). MANETs contain groups of communicating mobile wireless node without depending on existing cable infrastructure. Furthermore, the multimedia services application increasing among the internet users. The complexity on wireless communication between mobile nodes and random movement cause routing become very important. That's way researcher needs to find the suitable routing protocol that provide quality guarantee and support multimedia services on Mobile Ad Hoc Networks.

This final task contain analisis of comparative performance of multipath routing protocol Ad Hoc On-Demand Multipath Distance Vector (AOMDV) and Ad Hoc On-Demand Multipath Distance Vector with SNR (AOMDV-SNR) for multimedia services on Mobile Ad Hoc Networks with adding Signal to Noise Ratio (SNR) calculation algorithm to routing calculation mechanism. This simulation done using the Network Simulator version 2 (NS-2.35). The performance metrics are measured is Normalized Routing Load, Packet loss, and Throughput.

From the simulation results showed that, the performance of AOMDV-SNR is better than AOMDV on every performance metric in node amount scenario, node speed, packet size, and traffic amount with average value Throughput 73.62 Kbps; 135.12 Kbps; 194.34 Kbps; dan 186.92 Kbps, Normalized Routing Load 4.8; 6.16; 12.7; dan 5.05, serta Packet Loss 2.47%; 1.57; 2.38; dan 2.18%.

Keywords: *mobile adhoc, AOMDV, network simulator 2, NS-2.35, MANETs, SNR.*