ELECTRONIC THESIS AND DISSERTATION UNSYIAH

TITLE

STUDI IMPLEMENTASI JARINGAN WIRELESS MESHNETWORKMENGGUNAKANPROTOKOL ROUTING OLSR

ABSTRACT

Wireless Mesh Network (WMN) is a set of two or more nodes which consist of mesh routers and mesh clients. Mesh routers have the functionality as internet gateway and bridge, so it may be to combine WMN with other networks such as the Internet, GSM, and WiMAX. Wireless Mesh Network (WMN) is an alternative option from network application of a wireless network and has several excesses compared with the WLAN network and ad-hoc network which commonly used at this time. WMN has several advantages such as self-organized, self-healing and self-configured so that the network application WMN is easy to implement. There are several routing protocols that can be used in WMN, OLSR is one of the many used. OLSR is a proactive routing protocol, which is always up to date via the network packet sending periodic control. The purpose of this research is to implement network WMN on one particular area, and further testing is done and QoS measurement of the value that is owned by the network. This measurement is done based on the number of hop that skipped in the process of sending data. Results of research indicate that the use of application WMN can extend wireless network coverage area significantly. Results of this research also shows the change in the quality of the decreased throughput, transaction rate and response time from the network WMN implemented. These changes occur based on the number of hop that skipped in the process of sending data packets.