

## **ABSTRACT**

*IT Telkom Bandung has a network that connected to internet as the facilities provided by the college for academic purposes. One of the parameters to analyze the density of traffic on the network is the bandwidth usage. Bandwidth usage on the network can be analyzed by the management protocol is SNMP protocol. The main thing that causes traffic density is characteristic of user needs. The high density of traffic causing congestion on the network.*

*In this thesis the tools used in the form of cacti that can monitor the network traffic in particular bandwidth usage. The parameters measured were the percentage of average bandwidth usage utilization value. The solution to overcome the problems of traffic congestion it must be built in a way improved network efficiency and network performance. The efficiency of the network can be done by allocating traffic usage by the main goal of network construction, while increasing network performance can be done by developing a network device.*

*The end result of this thesis found that for lecture VPN's, yearly inbound and outbound utilization value is 24,5% and 52,8%. For students 1 VPN's, yearly inbound and outbound utilization value is 7,33% and 41,06%. For students 2 VPN's, yearly inbound and outbound is 5% and 27,87%. However if seeing from yearly utilization value explain that bandwidth usage is still be used.*

*Keywords : bandwidth, traffic, SNMP, cacti*