

## ABSTRACT

Computer network monitoring is the process of collecting and analyzing data that occurs in network traffic. In this research, designed application of monitoring system based on cacti, which implemented in Telkom University network that occurs in building A, building N, and building O which aims to monitor traffic conditions with measurement parameters: CPU usage, data traffic, and latency. Obtained results of measurement in this case with the average value of CPU usage in building A at week 1 and 2 that is 34% and 34% while in building N at week 1 and 2 that is 35% and 35% . For traffic measurement parameter of data traffic got result of total value of inbound traffic bigger than outbound in every building. And for latency measurement parameters it can be seen that the mean overall latency value in each building is still in very good category with value below 150 ms. From the results of this case can be concluded that network conditions in building A, building N, and building O still in the normal category by looking at the parameters that have been measured by using software monitoring based on cacti.

Key Words: Network Monitoring, *CPU Usage*, Data Traffic, Latency.