

## ABSTRACT

Internet is now an important need for people around the world. The internet network can be used as a concept where several computers can communicate with each other and share data and information connected to the world connection. Computer networks connected to the internet affect the amount of bandwidth capacity, where the use of bandwidth is often not functioned optimally, which can harm other users. Without bandwidth management on the internet network, it can result in uneven or less than optimal bandwidth distribution. Therefore, it is necessary to regulate the use of bandwidth needed in each user so that the bandwidth distribution given to each user becomes regular, fair and can maximize the available bandwidth.

Bandwidth management is a way that can be used to optimize the management of various types of networks by implementing Quality Of Service (QoS) services that can be used to determine the types of network traffic. In handling private networks by limiting traffic levels, network administrators are able to manage incoming rates and outgoing traffic rates so that no user or application exceeds the maximum allocated transmission rate or monopolizes channel bandwidth.

In this thesis, the analysis of network quality comparison between the 15th floor and the 18th floor using 2.4 GHz frequency at Telkom Landmark Tower is discussed. Network performance measurements are conducted using nPerf on a browser, with the parameters measured being Throughput, Delay (Latency), Jitter, and Packet Loss. The objective of this study is to analyze the performance quality of the internet service at Telkom Landmark Tower on the 15th and 18th floors. The results indicate that the network quality on the 15th floor of Telkom Landmark Tower, before bandwidth management and during non-peak hours, achieved a standard result of TYPHON. However, during peak hours, the 15th floor also achieved a good result according to the TYPHON standard.

**Keywords:** Internet, Bandwidth management, Quality of Service (QoS).