

## ABSTRACT

*Based on a survey conducted at the Banyumas Regency Fisheries and Livestock Service, the agency has a problem in bandwidth management where each client does not get bandwidth evenly, so bandwidth management is needed in the service. One method that is often used in bandwidth management is the queue tree method, a rule that is applied in the distribution of bandwidth and is also a configuration that is useful for marking packet flow and then using this sign as identification of the current. This final project aims to analyze and optimize bandwidth management at the Banyumas Regency Fisheries and Livestock Service, with the hope that the distribution of bandwidth can be evenly distributed in every room so that it can improve employee performance and the quality of related services. Implementation in this final project uses a proxy configuration with queue tree method for quality of service testing (QoS) based on delay parameters, jitter packet loss and throughput. Based on quality of service testing (QoS) it was found that the average lowest delay was 2.44 ms on each client, the lowest average Jitter was 3.23 ms on each client, the lowest packet loss was 6.79% on each client, and the average average throughput highest 2.38 Mbps on each client. The conclusion of this study the results of quality of service (QoS) from the four clients implemented, the average value of throughput, delay, jitter and packet loss generated in accordance with the standardization of TIPHON TR 101 329 v2.1.1 (1999-06). From the results of the observation, it is also found that the queue tree method is better than before the bandwidth management refers to the results obtained in this study.*

**Keyword:** *Bandwidth, Microtic, Queue Tree*