

## **ABSTRACT**

*When the connectivity and people's mobilization improve, the need of networking to adapting and service supply are increased too. In order that service usage has the right aim, in the meaning that only the right user who has the right access in using services and source services, the necessity of a special connection port to connecting users and source is a must. The needed of its connectivity has improved by technology i.e. Virtual Private Network (VPN).*

*Nowadays, the connectivity trough internet are needed to browsing any information, email, download and upload, or for chatting. The demand of dividing the bandwidth are necessary to establish. In order that, the usage of hardware that can divide bandwidth fairly are necessary. And the choice of Mikrotik Operation System are the answer. This Operation System has complete feature for WLAN and LAN, which is one of the feature has improved by technology i.e. bandwidth management. Bandwidth management are need to arrange every single data that pass through the system, so then bandwidth can be able to divided fairly.*

*This final project are purpose to design and implementation of VPN Server and Bandwidth management as one integrated Mikrotik Operation System within WLAN and LAN networking. In order to divide Bandwidth appropriate to every user's need, the result of the implementation within the network will analized as data QOS (Quality of Service) analization. So, the user who already has the right to use VPN service will get the best service because of the fairness of bandwidth dividion and guaranteed networking security.*

*keywords : VPN, Bandwidth Management, WLAN, LAN, Mikrotik, QOS*