

## ABSTRAK

SMK Negeri 1 Trowulan requires a safe and efficient network to support operations and learning processes. The existing network is not yet able to connect various school buildings optimally, resulting in limitations in access to information and communication. This research aims to implement a Virtual Private Network (VPN) using the L2TP/IPSec method on a MikroTik router to increase the security and efficiency of the school network.

The implementation process involves configuring an L2TP/IPSec VPN that provides data encryption, thereby enabling secure communication between the school's local network and the public network. The test results show that the network built is able to increase security and efficiency of data access for users in the school environment. It is hoped that this implementation can become a model for other schools facing similar challenges.

Keywords: VPN, L2TP/IPSec, MikroTik, School Network, Network Security

