ABSTRACT

This final project research is entitled: Network Security Strategy and Prevention of DDoS Attacks Using Firewall Filtering and Raw Concepts, which aims to make network security in Router devices in a NOC & IT room safer from the threat of Distributed Denial of Service (DDoS) attacks and make the environment NOC & IT work is free from access to several websites that are illegal or inappropriate. The NOC & IT room has a network topology in the form of LAN & WLAN which consists of several network devices that are connected to each other. This research utilizes the firewall filtering concept (filter rules) as a feature to manage whether or not a data packet route passes through the router from the local network to the internet as well as the raw firewall concept as a network protection feature from DDoS attacks.

To implement these two concepts, it is carried out using the MikroTik RouterBoard network management device. This device already has several firewall features, including rules and raw filters. The design of this research starts from stages which include the research planning stage, data collection stage, design preparation stage, and testing and results stage. The results of this research are that the design of blocking several illegal websites has been implemented and securing Router network devices from DDoS attacks, then from the NOC & IT side, healthy internet access has been implemented and employees are protected from several inappropriate websites and devices. Routers installed in the NOC & IT room are also protected and safe from DDoS attacks.

Keywords*: Internet Network, Website, DDoS, MikroTik RouterBoard, Firewall filtering, Firewall raw*