ABSTRACT

The internet makes communication of information today very easy and fast, this convenience also causes many crimes involving the internet. examples of cyber crimes that occurred such as the case of hacking Chinese espionage which allegedly infiltrated the BIN network and 9 other state institutions by sending malware to the target. However, the malware delivery method and the intrusion point are still not found. So we need a safe system, that it can prevent Hacking and attack. To prevent these attack, a system equipped with firewall and Intrusion Detection System (IDS) features is required. Firewall and Intrusion Detection system (IDS) features can be applied with OPNSense Tools. Implementing a Firewall and Intrusion Detection System (IDS) with OPNSense Tools can provide solutions to protect servers and block attacks. When scanning, testing DDOS and sniffing, the system can record attack logs, send attack notifications, block attacks, and test URL Filters on websites.

Keywords: Firewall, Intrusion Detection System, OPNSense, Network, Intrusion.