ABSTRACT

Computer network security as part of an information system is very important to maintain the validity and integrity of the data and ensure the availability of the service for its users. The system must be protected from all sorts of attacks and intrusion attempts or scanning by unauthorized parties. Therefore, it is necessary to develop security measures and preventing the system more reliable in securing data. One of the security measures that can be done is to implement the Operating System firewall IPCop as well as integrate with IDS (Intrusion Detection System) for the detection and security that can be performed simultaneously and automatically. Functioned as a blocking firewall using IPTables Firewall, while built using Snort as IDS attack detection. IPCop Firewall Operating System will be implemented on the internal network so that the network has security features and blocking of threats or attacks. From the test results, IPCop can detect and stop attacks from the attacker and sends email notifications to the administrator.

Keywords: Firewall, Intrusion Detection System, IPCop