

## **ABSTRACT**

*A firewall is a system or device that allows network traffic that is considered safe to pass through and prevents network traffic that is not secure. Firewalls can be used to prevent attacks on IT services. In this study, implementing a firewall on load testing to obtain a firewall system profile based on the consumption of computing resources. This study uses a literature study and analysis of monitoring the measurement of the use of computing resources as a method for conducting testing. The tests were carried out using two attack test scenarios, namely, the HTTP allow service and the HTTP block service by monitoring three types of attack classifications, namely before, during, and after the attack. In this study, using a virtualized Sophos firewall version 16.3.2 with 3.5 GB and 4 GB RAM to conduct tests or experiments. Experiments on a laboratory scale in the form of a virtualized Sophos firewall with firewall rules to handle DDoS SYN flood attacks from Kali Linux that lead to a web server on the Ubuntu server. The experimental results on the firewall are the highest consumption of computing resources, namely CPU 98,7%, memory 72%, and session 243837,53. For further research, it can be in the form of a profile that describes the relationship between attacks, firewalls, and servers.*

**Keywords** – *Virtualized Sophos firewall, profiling, monitoring, computing resources*