

## **ABSTRACT**

# **NETWORK SECURITY TECHNIQUE PERFORMANCE TESTING USING THE DE-MILITARIZED ZONE (DMZ) SYSTEM**

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*The development of the internet is increasingly rapid nowadays, where internet technology requires the support of information security aspects on a good computer network, there are many examples of network security concepts that exist in this world. Internet users need a good network security concept to secure the computer networks they use today. In this research, testing was implemented using DMZ (De-Militarized Zone) which is a solution for securing computer networks. Where later there will be a comparison of performance tests in implementing the DMZ method and without the DMZ method. The results of this research will tell you about how the network works and performance using the DMZ method and without the DMZ method. So there is one solution to secure a computer network on a computer network. This research uses simulation assistance with GNS3 software and the device OS uses Linux. In its implementation, a firewall will be created as a dividing wall between external and internal, whose function is to prevent unwanted access from occurring on the computer network. The measurement can be seen whether it is good or not by reading the iperf results and using a bandwidth of 15 Mbytes, where the small jitter value will explain that the method is safe and good to apply to computer networks with the DMZ concept.*

**Keyword : DMZ, Firewall, Linux, Iperf**