ABSTRACT

The development of information technology is very fast today followed by the development of cyber crime is growing rapidly. One of the cyber crime that is always evolving and there is no proper method to prevent is a DDOS with spoofing. The example of this DDOS attack is the smurf attack and attack recently occurred is the DNS Amplification Attack.

In this thesis, the implementation is done by building a small network which is one router was configured unicast Reverse Path Forwarding (uRPF). uRPF is a feature that only exists in the Cisco router. uRPF is used by network administrators to reduce some of the problems that occur in the router. With this feature, the router will check the source address of each packet received to ensure the correctness of the address. If the source address is not valid, the packet is discarded. After uRPF feature is configured, network security test by the conduct spoofing attacks, namely smurf and DNS amplification attack Attack. Furthermore, to determine the performance of this uRPF, conducted an analysis of the security aspects of the parameters of the CIA (Confidentiality, Integrity, Availability).

From the research, it was found that by implementing uRPF can prevent spoofing attacks originating from inside the network, so that the attack can be prevented as early as possible. uRPF proven to meet the main aspect of security, that is the Confidentiality, Integrity, and Availability.

Keywords : uRPF, FIB, CEF, Smurf Attack,DNS Amplification Attack .