

Abstract

Distributed denial-of-service (DDoS) is a major threat that can impede a service contained in any network. The main task of the defense system is to accurately detect this attack and quickly respond to stop this attack. The current strategy to reduce DDoS attacks is considered inefficient in addition to its very expensive costs, lack of resources and also inflexible. Making the current strategy less efficient. Blockchains like Ethereum are enabling new ways to counter Distributed denial-of-service (DDoS) attacks. Through Smart Contracts contained on the Ethereum Blockchain, you can inform the source of the attack or Blacklisted IP without the need for additional infrastructure. Blacklisted IPs are used by intrusion prevention systems (IPS) to detect and handle DDoS attacks. Intrusion Prevention System (IPS) is a method or tool used as a security system on a server. Intrusion Prevention System (IPS) can provide security against attacks by using intrusion detection system (IDS) and firewall functions to block network traffic access. In this study, a mechanism for distributing information on the source of attacks is proposed by combining blockchain technology with IPS (Intrusion Prevention System) so that DDoS attack mitigation becomes flexible and saves costs.