A Review of Defense against Distributed DoS attack based on Artificial Intelligence Approaches

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Abstract

Modern society is heavily reliant on information and communication technologies, which has made it more vulnerable to a wide range of cyber-attacks in recent decades. A Distributed Denial-of-Service (DDOS) attack, for example, uses the strength of hundreds or even thousands of infected computer systems to attack data-processing services and online businesses sites, increasing as a result disruption and financial losses, and therefore denying services to legitimate customers. The study of distributed denial-of-service attacks is an important area of research which has been addressed by various approaches. In this review, we are mainly focusing on AI methods namely, Bayesian networks, K-nearest neighbor algorithm, fuzzy logic, Neural Network, Support Vector Machine, and Genetic Algorithm to address distributed denial-of-service attacks.