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A Study on DDOS Attacks, Danger, and its Prevention

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Abstract: *The current era is entirely dependent on the Internet that serves as a global source of information for all users. Therefore, internet access is very important. Prohibition of service distribution is one of the most highlighted and most important types of cyber-attacks in today's world. This paper focuses on DDoS attacks that prevent network access by flooding the victim with high volume of illegal traffic grabbing its bandwidth, burdening it to prevent traffic from passing. We also described the several types of DoS attack strategies implemented in ISPs. The purpose of this study is to find a variety of strategies to prevent these attacks and their methods of mitigating and finding any possible solution. The dataset consists of Transmission Control Protocol (TCP), User Datagram Protocol (UDP), and Internet Control Message Protocol (ICMP) normal and attack traffics. The dataset, including further than 100 thousand recordings, has statistical features similar as byte count, duration, sec, packet rate, and packet per inflow, except for features that define source and target machines.*

Keywords: DDos attacks; Security Challenges; Preventing DDos; DoS; Intrusion Detection; SDN

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