Software Defined Networking (SDN) is a new trend in networking. SDN replaces traditional networking by separating control plane and data plane. SDN is managed by centralized controller. SDN has certain challenges such as security, reliability, controller failover, load balancing, traffic engineering. Security in SDN is more challenging than traditional networking. One of the security challenges in networking is DoS (Denial of Service) attack which can be created using various mechanisms. This paper review different DoS attacks which can be possible on control plane and data plane. This paper have surveyed, studied and identified the security challenges and different existing techniques to mitigate Dos attacks in SDN. Future researches on DoS attack mitigation techniques are indicated in this paper.

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**Index Terms**

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Keywords

Software Defined Network (SDN), Open Flow, security, DoS, ONF (Open Networking Foundation), TCP-SYN, ICMP, Southbound interface (SBI), Northbound interface (NBI).