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(54) **VIRTUAL NETWORK DISTRIBUTED  
DENIAL-OF-SERVICE SCRUBBER**

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(57) **ABSTRACT**

A novel overlay network DDOS mitigation system (ONDMS) is described for performing DDOS attack mitigation in a virtual network environment. Network traffic received by network resources in overlay networks is monitored. When a potential DDOS attack is detected, ONDMS may initiate a protected mode for a network resource. This may involve creating one or more shadow VNICs for the network resource being protected. While in protected mode, as a result of the one or more shadow VNICs, packets that would otherwise be received by the network resource being protected are instead redirected to one or more alternative destinations (e.g., to a DDOS scrubber system within ONDMS) that are configured to filter and analyze the packets and take appropriate mitigation actions, as needed. This protects the network resource being protected from the potential DDOS attack.

