## **Mininet**

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**UCLouvain** 

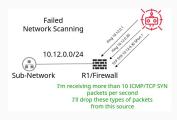
#### **Network Scan**

#### Attack



Send ICMP Requests to all the addresses of a given sub-domain Send TCP SYN packets to all of the found Hosts that responded Save the addresses and their open ports

#### Defense

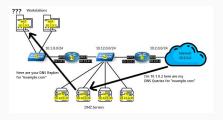


Send ICMP Requests/TCP SYN Packets to all the addresses of a given sub-domain

Firewall sees that the amount of these type of packets that were received surpasses the threshold so it drops

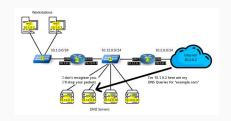
#### **Dns Reflection**

### Attack



- Send Dns Requests in the name of the victim
- DNS Server processes and sends response to the victim
- Victim is overloaded with Traffic becoming Unavailable

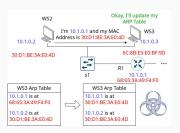
#### Defense



- Send Dns Requests in the name of the victim
- DNS Server doesn't recognize the source of the request meaning it's spoofed so it
- Drops the packet

## **Arp Poisoning**

#### Attack



- Send Spoofed ARP packet saying that our MAC Address matches the Default Gateway's
- Victim Updates it's ARP Table with wrong MAC Address
- Attacker receiver all the traffic coming out of Victim

#### Defense

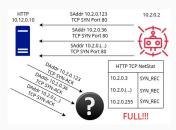


- Send Spoofed ARP packet saying that our MAC Address matches the Default Gateway's
- Victim checks it's ARP Table for changes in the MAC
- Ignores the ARP Change request

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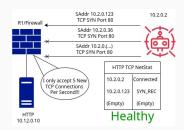
# Syn Flooding

#### Attack



- Send spoofed TCP SYN packets to a victim's open port
- Victim adds the tcp connections
  Victim sends SYN-ACKS that will
  never get be answered leaving the
  connections table full

### Defense



- Send spoofed TCP SYN packets to a victim's open port
- Firewall sets a limit of 5 new TCP Connections per second
- Victim might send unanswerable SYN-ACKS but not enough to block new legitimate connections

#### SSH Bruteforce

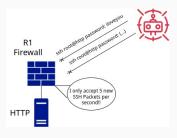
#### Attack



Try to ssh login with every password in a list

Eventually find correct credentials Login and profit

#### Defense



Try to ssh login with every password in a list

Firewall blocks the attempt because it surpasses the threshold