

CS2007-Assignment-9

The image shows a Kali Linux desktop environment with three terminal windows open. The leftmost terminal shows a failed ping to 127.0.0.1 and a netstat output showing a 100% dropped connection. The middle terminal shows a netstat output with a large number of dropped connections. The rightmost terminal shows a netstat output with a large number of dropped connections.

```
csq@Ubuntu1: ~  
$ sudo python3 ~/mininet/custom/lab9.py  
Unable to contact the remote controller at 127.0.0.1:6653  
mininet: pingall  
h1 -> X X X  
h2 -> X X X  
h3 -> X X X  
h4 -> X X X  
Results: 100% dropped (0/12 received)  
mininet: docx dump-flows  
*** s1 ***  
cookie=0x0, duration=183.338s, table=0, n_packets=1, n_bytes=86, ipv6,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:03,d_dst=33:33:ff:00:00:03 actions=drop  
cookie=0x0, duration=183.242s, table=0, n_packets=1, n_bytes=86, ipv6,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:02,d_dst=33:33:ff:00:00:02 actions=drop  
cookie=0x0, duration=183.210s, table=0, n_packets=1, n_bytes=290, ipv6,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:04,d_dst=33:33:00:00:00:16 actions=drop  
cookie=0x0, duration=182.984s, table=0, n_packets=3, n_bytes=290, ipv6,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:03,d_dst=33:33:00:00:00:16 actions=drop  
cookie=0x0, duration=182.983s, table=0, n_packets=3, n_bytes=290, ipv6,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:02,d_dst=33:33:00:00:00:16 actions=drop  
cookie=0x0, duration=182.725s, table=0, n_packets=1, n_bytes=86, ipv6,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:01,d_dst=33:33:ff:00:00:01 actions=drop  
cookie=0x0, duration=182.034s, table=0, n_packets=1, n_bytes=86, ipv6,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:04,d_dst=33:33:ff:00:00:04 actions=drop  
cookie=0x0, duration=182.302s, table=0, n_packets=6, n_bytes=420, ipv6,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:02,d_dst=33:33:00:00:00:02 actions=drop  
cookie=0x0, duration=182.216s, table=0, n_packets=6, n_bytes=420, ipv6,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:02,d_dst=33:33:00:00:00:02 actions=drop  
cookie=0x0, duration=181.706s, table=0, n_packets=2, n_bytes=180, ipv6,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:01,d_dst=33:33:00:00:00:16 actions=drop  
cookie=0x0, duration=181.706s, table=0, n_packets=6, n_bytes=420, ipv6,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:01,d_dst=33:33:00:00:00:02 actions=drop  
cookie=0x0, duration=181.579s, table=0, n_packets=6, n_bytes=420, ipv6,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:04,d_dst=33:33:00:00:00:02 actions=drop  
cookie=0x0, duration=144.263s, table=0, n_packets=1, n_bytes=42, arp,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:01,d_dst=ffff:ffff:ffff:ffff:arp_spa=10.0.1.10,arp_tpa=10.0.1.10,arp_op=1 actions=FLOOD  
cookie=0x0, duration=144.261s, table=0, n_packets=1, n_bytes=42, arp,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:02,d_dst=00:00:00:00:00:01,arp_spa=10.0.1.10,arp_tpa=10.0.1.10,arp_op=1 actions=FLOOD  
cookie=0x0, duration=134.240s, table=0, n_packets=1, n_bytes=42, arp,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:01,d_dst=ffff:ffff:ffff:ffff:arp_spa=10.0.1.10,arp_tpa=10.0.1.10,arp_op=1 actions=FLOOD  
cookie=0x0, duration=134.238s, table=0, n_packets=1, n_bytes=42, arp,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:03,d_dst=00:00:00:00:00:01,arp_spa=10.0.1.10,arp_tpa=10.0.1.10,arp_op=1 actions=FLOOD  
cookie=0x0, duration=124.320s, table=0, n_packets=1, n_bytes=42, arp,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:01,d_dst=ffff:ffff:ffff:ffff:arp_spa=10.0.1.10,arp_tpa=10.0.1.10,arp_op=1 actions=FLOOD  
cookie=0x0, duration=124.299s, table=0, n_packets=1, n_bytes=42, arp,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:04,d_dst=00:00:00:00:00:01,arp_spa=10.0.1.10,arp_tpa=10.0.1.10,arp_op=1 actions=FLOOD  
cookie=0x0, duration=109.066s, table=0, n_packets=1, n_bytes=42, arp,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:02,d_dst=00:00:00:00:00:01,arp_spa=10.0.1.10,arp_tpa=10.0.1.10,arp_op=1 actions=FLOOD  
cookie=0x0, duration=109.065s, table=0, n_packets=1, n_bytes=42, arp,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:01,d_dst=00:00:00:00:00:02,arp_spa=10.0.1.10,arp_tpa=10.0.1.10,arp_op=1 actions=FLOOD  
cookie=0x0, duration=104.214s, table=0, n_packets=1, n_bytes=42, arp,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:02,d_dst=ffff:ffff:ffff:ffff:arp_spa=10.0.1.10,arp_tpa=10.0.1.10,arp_op=1 actions=FLOOD  
cookie=0x0, duration=94.861s, table=0, n_packets=1, n_bytes=42, arp,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:03,d_dst=00:00:00:00:00:02,arp_spa=10.0.1.10,arp_tpa=10.0.1.10,arp_op=1 actions=FLOOD  
cookie=0x0, duration=94.078s, table=0, n_packets=1, n_bytes=42, arp,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:02,d_dst=ffff:ffff:ffff:ffff:arp_spa=10.0.1.10,arp_tpa=10.0.1.10,arp_op=1 actions=FLOOD  
cookie=0x0, duration=94.076s, table=0, n_packets=1, n_bytes=42, arp,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:04,d_dst=00:00:00:00:00:02,arp_spa=10.0.1.10,arp_tpa=10.0.1.10,arp_op=1 actions=FLOOD  
cookie=0x0, duration=78.844s, table=0, n_packets=1, n_bytes=42, arp,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:03,d_dst=00:00:00:00:00:01,arp_spa=10.0.1.10,arp_tpa=10.0.1.10,arp_op=1 actions=FLOOD  
cookie=0x0, duration=78.843s, table=0, n_packets=1, n_bytes=42, arp,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:01,d_dst=00:00:00:00:00:03,arp_spa=10.0.1.10,arp_tpa=10.0.1.10,arp_op=1 actions=FLOOD  
cookie=0x0, duration=68.861s, table=0, n_packets=1, n_bytes=42, arp,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:03,d_dst=00:00:00:00:00:02,arp_spa=10.0.1.10,arp_tpa=10.0.1.10,arp_op=1 actions=FLOOD  
cookie=0x0, duration=68.860s, table=0, n_packets=1, n_bytes=42, arp,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:02,d_dst=00:00:00:00:00:03,arp_spa=10.0.1.10,arp_tpa=10.0.1.10,arp_op=1 actions=FLOOD  
cookie=0x0, duration=64.042s, table=0, n_packets=1, n_bytes=42, arp,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:03,d_dst=ffff:ffff:ffff:ffff:arp_spa=10.0.1.10,arp_tpa=10.0.1.10,arp_op=1 actions=FLOOD  
cookie=0x0, duration=64.040s, table=0, n_packets=1, n_bytes=42, arp,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:04,d_dst=00:00:00:00:00:03,arp_spa=10.0.1.10,arp_tpa=10.0.1.10,arp_op=1 actions=FLOOD  
cookie=0x0, duration=48.897s, table=0, n_packets=1, n_bytes=42, arp,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:04,d_dst=00:00:00:00:00:01,arp_spa=10.0.1.10,arp_tpa=10.0.1.10,arp_op=1 actions=FLOOD  
cookie=0x0, duration=48.896s, table=0, n_packets=1, n_bytes=42, arp,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:01,d_dst=00:00:00:00:00:04,arp_spa=10.0.1.10,arp_tpa=10.0.1.10,arp_op=1 actions=FLOOD  
cookie=0x0, duration=38.922s, table=0, n_packets=1, n_bytes=42, arp,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:04,d_dst=00:00:00:00:00:02,arp_spa=10.0.1.10,arp_tpa=10.0.1.10,arp_op=1 actions=FLOOD  
cookie=0x0, duration=38.921s, table=0, n_packets=1, n_bytes=42, arp,vlan_tci=0x0000,d_lsrc=00:00:00:00:00:02,d_dst=00:00:00:00:00:04,arp_spa=10.0.1.10,arp_tpa=10.0.1.10,arp_op=1 actions=FLOOD  
cookie=0x0, duration=28.936s, table=0, n_packets=1, n_bytes=42, arp,vlan_tci=0x0
```

The image shows a Kali Linux desktop environment with a terminal window open. The terminal displays a network traffic capture analysis using Wireshark. The output shows a list of captured packets, including ARP requests and ICMP Echo (ping) requests, with their respective details and actions. The terminal window is titled "csg@Ubuntu: ~" and shows the command "csg@Ubuntu: ~" at the prompt.

```
csg@Ubuntu: ~  
cookie=0x0, duration=104.214s, table=0, n_packets=1, n_bytes=42, arp_vlan_tci=0x0000,d_lsrc=00:00:00:00:00:02,d_dst=ffff:ffff:ffff:ffff,arp_spa=10.0.1.20,arp_tpa=10.0.1.30,arp_op=2 actions=FLOOD  
cookie=0x0, duration=104.213s, table=0, n_packets=1, n_bytes=42, arp_vlan_tci=0x0000,d_lsrc=00:00:00:00:00:03,d_dst=00:00:00:00:00:02,arp_spa=10.0.1.30,arp_tpa=10.0.1.20,arp_op=2 actions=FLOOD  
cookie=0x0, duration=94.070s, table=0, n_packets=1, n_bytes=42, arp_vlan_tci=0x0000,d_lsrc=00:00:00:00:00:02,d_dst=ffff:ffff:ffff:ffff,arp_spa=10.0.1.20,arp_tpa=10.0.1.40,arp_op=1 actions=FLOOD  
cookie=0x0, duration=94.070s, table=0, n_packets=1, n_bytes=42, arp_vlan_tci=0x0000,d_lsrc=00:00:00:00:00:04,d_dst=00:00:00:00:00:02,arp_spa=10.0.1.40,arp_tpa=10.0.1.20,arp_op=2 actions=FLOOD  
cookie=0x0, duration=78.844s, table=0, n_packets=1, n_bytes=42, arp_vlan_tci=0x0000,d_lsrc=00:00:00:00:00:03,d_dst=00:00:00:00:00:01,arp_spa=10.0.1.30,arp_tpa=10.0.1.10,arp_op=1 actions=FLOOD  
cookie=0x0, duration=78.843s, table=0, n_packets=1, n_bytes=42, arp_vlan_tci=0x0000,d_lsrc=00:00:00:00:00:01,d_dst=00:00:00:00:00:03,arp_spa=10.0.1.10,arp_tpa=10.0.1.30,arp_op=2 actions=FLOOD  
cookie=0x0, duration=68.861s, table=0, n_packets=1, n_bytes=42, arp_vlan_tci=0x0000,d_lsrc=00:00:00:00:00:03,d_dst=00:00:00:00:00:02,arp_spa=10.0.1.30,arp_tpa=10.0.1.20,arp_op=1 actions=FLOOD  
cookie=0x0, duration=68.860s, table=0, n_packets=1, n_bytes=42, arp_vlan_tci=0x0000,d_lsrc=00:00:00:00:00:02,d_dst=00:00:00:00:00:03,arp_spa=10.0.1.20,arp_tpa=10.0.1.30,arp_op=2 actions=FLOOD  
cookie=0x0, duration=64.042s, table=0, n_packets=1, n_bytes=42, arp_vlan_tci=0x0000,d_lsrc=00:00:00:00:00:03,d_dst=ffff:ffff:ffff:ffff,arp_spa=10.0.1.30,arp_tpa=10.0.1.40,arp_op=1 actions=FLOOD  
cookie=0x0, duration=64.040s, table=0, n_packets=1, n_bytes=42, arp_vlan_tci=0x0000,d_lsrc=00:00:00:00:00:04,d_dst=00:00:00:00:00:03,arp_spa=10.0.1.40,arp_tpa=10.0.1.20,arp_op=2 actions=FLOOD  
cookie=0x0, duration=48.897s, table=0, n_packets=1, n_bytes=42, arp_vlan_tci=0x0000,d_lsrc=00:00:00:00:00:04,d_dst=00:00:00:00:00:01,arp_spa=10.0.1.10,arp_tpa=10.0.1.30,arp_op=1 actions=FLOOD  
cookie=0x0, duration=48.897s, table=0, n_packets=1, n_bytes=42, arp_vlan_tci=0x0000,d_lsrc=00:00:00:00:00:01,d_dst=00:00:00:00:00:04,arp_spa=10.0.1.10,arp_tpa=10.0.1.40,arp_op=2 actions=FLOOD  
cookie=0x0, duration=38.922s, table=0, n_packets=1, n_bytes=42, arp_vlan_tci=0x0000,d_lsrc=00:00:00:00:00:04,d_dst=00:00:00:00:00:03,arp_spa=10.0.1.40,arp_tpa=10.0.1.20,arp_op=1 actions=FLOOD  
cookie=0x0, duration=38.921s, table=0, n_packets=1, n_bytes=42, arp_vlan_tci=0x0000,d_lsrc=00:00:00:00:00:02,d_dst=00:00:00:00:00:04,arp_spa=10.0.1.20,arp_tpa=10.0.1.40,arp_op=2 actions=FLOOD  
cookie=0x0, duration=28.936s, table=0, n_packets=1, n_bytes=42, arp_vlan_tci=0x0000,d_lsrc=00:00:00:00:00:03,d_dst=00:00:00:00:00:01,arp_spa=10.0.1.10,arp_tpa=10.0.1.30,arp_op=1 actions=FLOOD  
cookie=0x0, duration=28.935s, table=0, n_packets=1, n_bytes=42, arp_vlan_tci=0x0000,d_lsrc=00:00:00:00:00:03,d_dst=00:00:00:00:00:04,arp_spa=10.0.1.30,arp_tpa=10.0.1.40,arp_op=2 actions=FLOOD  
cookie=0x0, duration=144.260s, table=0, n_packets=1, n_bytes=98, icmp_vlan_tci=0x0000,d_lsrc=00:00:00:00:00:01,d_dst=00:00:00:00:00:02,nw_src=10.0.1.10,nw_dst=10.0.1.20,nw_tos=0,icmp_type=8,icmp_code=0  
actions=drop  
cookie=0x0, duration=134.237s, table=0, n_packets=1, n_bytes=98, icmp_vlan_tci=0x0000,d_lsrc=00:00:00:00:00:01,d_dst=00:00:00:00:00:03,nw_src=10.0.1.10,nw_dst=10.0.1.30,nw_tos=0,icmp_type=8,icmp_code=0  
cookie=0x0, duration=124.229s, table=0, n_packets=1, n_bytes=98, icmp_vlan_tci=0x0000,d_lsrc=00:00:00:00:00:01,d_dst=00:00:00:00:00:04,nw_src=10.0.1.10,nw_dst=10.0.1.40,nw_tos=0,icmp_type=8,icmp_code=0  
actions=drop  
cookie=0x0, duration=114.222s, table=0, n_packets=1, n_bytes=98, icmp_vlan_tci=0x0000,d_lsrc=00:00:00:00:00:02,d_dst=00:00:00:00:00:01,nw_src=10.0.1.20,nw_dst=10.0.1.10,nw_tos=0,icmp_type=8,icmp_code=0  
actions=drop  
cookie=0x0, duration=104.213s, table=0, n_packets=1, n_bytes=98, icmp_vlan_tci=0x0000,d_lsrc=00:00:00:00:00:02,d_dst=00:00:00:00:00:03,nw_src=10.0.1.20,nw_dst=10.0.1.30,nw_tos=0,icmp_type=8,icmp_code=0  
actions=drop  
cookie=0x0, duration=94.069s, table=0, n_packets=1, n_bytes=98, icmp_vlan_tci=0x0000,d_lsrc=00:00:00:00:00:02,d_dst=00:00:00:00:00:04,nw_src=10.0.1.20,nw_dst=10.0.1.40,nw_tos=0,icmp_type=8,icmp_code=0  
actions=drop  
cookie=0x0, duration=84.063s, table=0, n_packets=1, n_bytes=98, icmp_vlan_tci=0x0000,d_lsrc=00:00:00:00:00:03,d_dst=00:00:00:00:00:01,nw_src=10.0.1.30,nw_dst=10.0.1.10,nw_tos=0,icmp_type=8,icmp_code=0  
actions=drop  
cookie=0x0, duration=74.077s, table=0, n_packets=1, n_bytes=98, icmp_vlan_tci=0x0000,d_lsrc=00:00:00:00:00:03,d_dst=00:00:00:00:00:02,nw_src=10.0.1.30,nw_dst=10.0.1.20,nw_tos=0,icmp_type=8,icmp_code=0  
actions=drop  
cookie=0x0, duration=64.039s, table=0, n_packets=1, n_bytes=98, icmp_vlan_tci=0x0000,d_lsrc=00:00:00:00:00:03,d_dst=00:00:00:00:00:04,nw_src=10.0.1.30,nw_dst=10.0.1.40,nw_tos=0,icmp_type=8,icmp_code=0  
actions=drop  
cookie=0x0, duration=54.032s, table=0, n_packets=1, n_bytes=98, icmp_vlan_tci=0x0000,d_lsrc=00:00:00:00:00:04,d_dst=00:00:00:00:00:01,nw_src=10.0.1.40,nw_dst=10.0.1.10,nw_tos=0,icmp_type=8,icmp_code=0  
actions=drop  
cookie=0x0, duration=44.024s, table=0, n_packets=1, n_bytes=98, icmp_vlan_tci=0x0000,d_lsrc=00:00:00:00:00:04,d_dst=00:00:00:00:00:02,nw_src=10.0.1.40,nw_dst=10.0.1.20,nw_tos=0,icmp_type=8,icmp_code=0  
actions=drop  
cookie=0x0, duration=34.018s, table=0, n_packets=1, n_bytes=98, icmp_vlan_tci=0x0000,d_lsrc=00:00:00:00:00:04,d_dst=00:00:00:00:00:03,nw_src=10.0.1.40,nw_dst=10.0.1.30,nw_tos=0,icmp_type=8,icmp_code=0  
actions=drop  
m1n1net> iperf h1 h2  
*** Iperf: testing TCP bandwidth between h1 and h2  
*** Results: ['39.0 Gbits/sec', '39.7 Gbits/sec']  
m1n1net nodes  
available nodes are:  
c0 h1 h2 h3 h4 s1  
m1n1net> iperf h1 h3  
*** Iperf: testing TCP bandwidth between h1 and h3  
*** Results: ['38.0 Gbits/sec', '40.2 Gbits/sec']  
m1n1net> iperf h1 h4  
*** Iperf: testing TCP bandwidth between h1 and h4  
*** Results: ['35.4 Gbits/sec', '35.5 Gbits/sec']  
m1n1net>
```