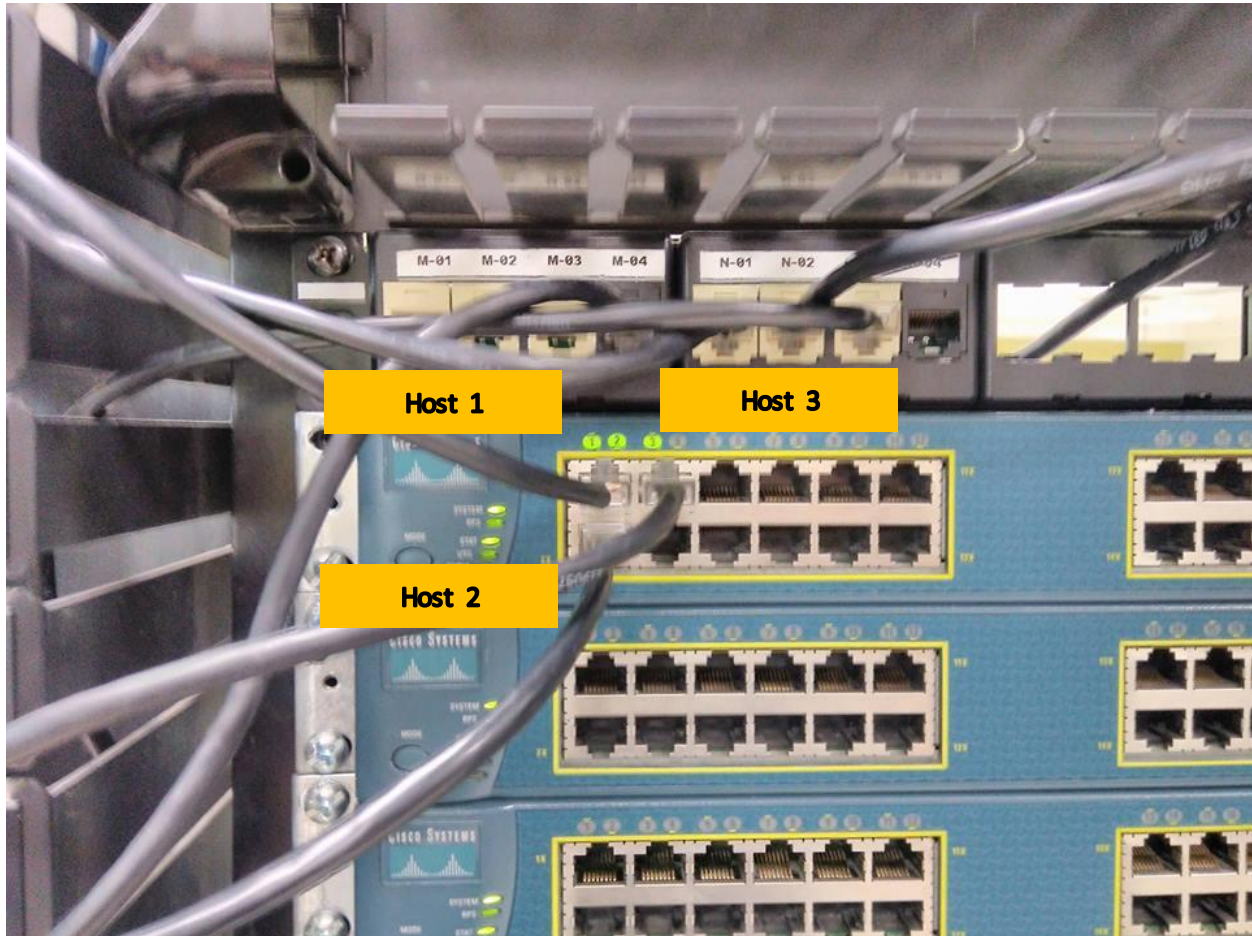
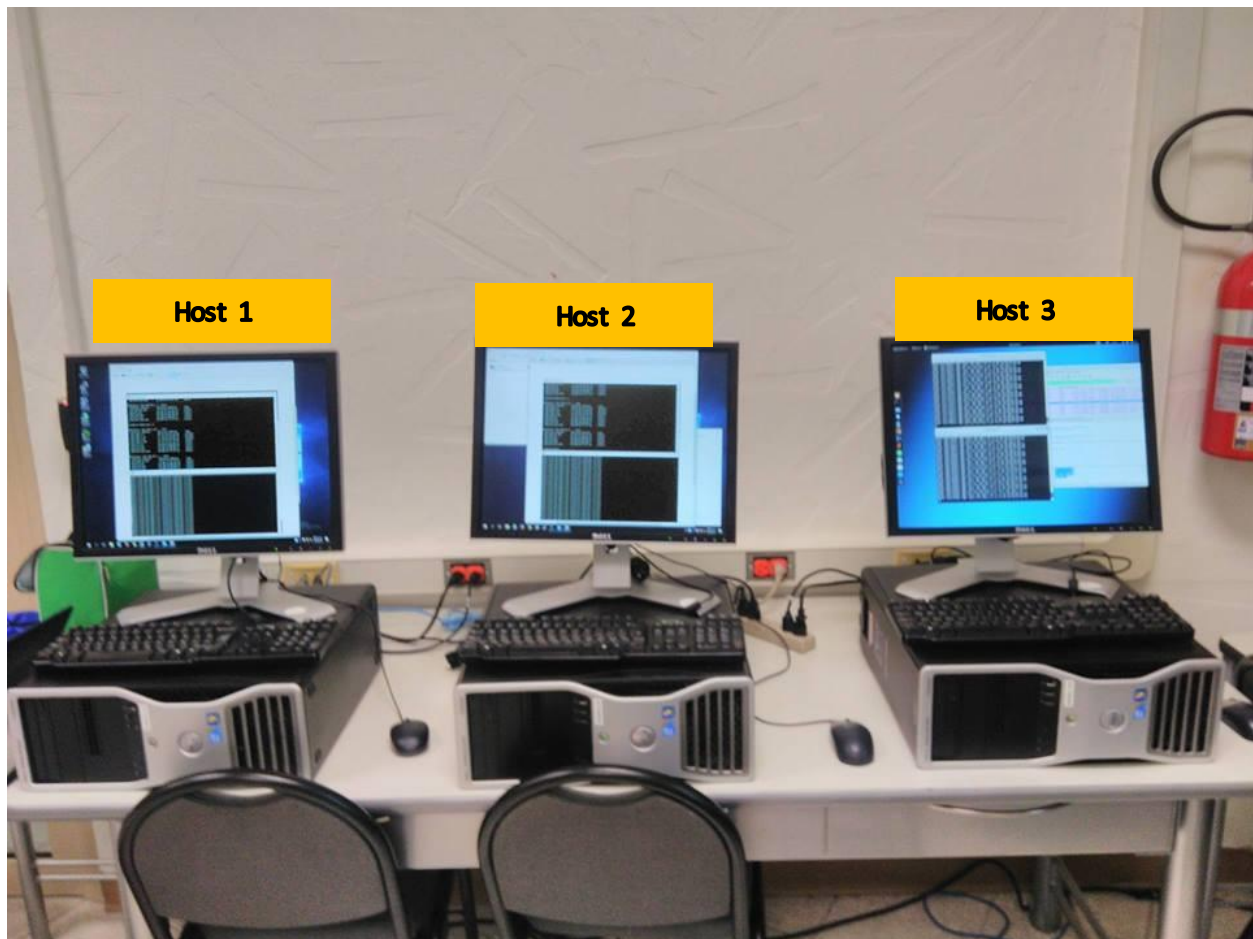


Práctica de Laboratorio #4

1. Foto de la topología armada:





2. Arp Cache de host 1 y host 2 antes y durante el ataque:

Host 1 – Antes:

```

Command Prompt

Ping statistics for 192.168.1.11:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Users\redes>
C:\Users\redes>
C:\Users\redes>arp -a

Interface: 192.168.1.10 --- 0xf
Internet Address      Physical Address      Type
192.168.1.1           00-12-d9-e3-a2-00    dynamic
192.168.1.11          bc-30-5b-e5-09-1b    dynamic
192.168.1.12          bc-30-5b-e5-09-16    dynamic
192.168.1.255         ff-ff-ff-ff-ff-ff    static
224.0.0.22            01-00-5e-00-00-16    static
224.0.0.251           01-00-5e-00-00-fb    static
224.0.0.252           01-00-5e-00-00-fc    static
239.255.255.250       01-00-5e-7f-ff-fa    static

Interface: 192.168.56.1 --- 0x12
Internet Address      Physical Address      Type
192.168.56.255        ff-ff-ff-ff-ff-ff    static
224.0.0.22            01-00-5e-00-00-16    static
224.0.0.251           01-00-5e-00-00-fb    static
224.0.0.252           01-00-5e-00-00-fc    static
239.255.255.250       01-00-5e-7f-ff-fa    static

C:\Users\redes>

```

Host 1 – Durant e:

```
C:\Users\redes>arp -a

Interface: 192.168.1.10 --- 0xf
    Internet Address      Physical Address      Type
    192.168.1.1          00-12-d9-e3-a2-00    dynamic
    192.168.1.11         bc-30-5b-e5-09-16    dynamic
    192.168.1.12         bc-30-5b-e5-09-16    dynamic
    192.168.1.255        ff-ff-ff-ff-ff-ff    static
    224.0.0.22           01-00-5e-00-00-16    static
    224.0.0.251         01-00-5e-00-00-fb    static
    224.0.0.252         01-00-5e-00-00-fc    static
    239.255.255.250      01-00-5e-7f-ff-fa    static

Interface: 192.168.56.1 --- 0x12
    Internet Address      Physical Address      Type
    192.168.56.255       ff-ff-ff-ff-ff-ff    static
    224.0.0.22           01-00-5e-00-00-16    static
    224.0.0.251         01-00-5e-00-00-fb    static
    224.0.0.252         01-00-5e-00-00-fc    static
    239.255.255.250      01-00-5e-7f-ff-fa    static

C:\Users\redes>
```

Host 2 – Ant es:

```
Select Command Prompt
Ping statistics for 192.168.1.10:
    Packets: Sent = 114, Received = 113, Lost = 1 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1168ms, Average = 12ms
Control-C
^C
C:\Users\redes>
C:\Users\redes>
C:\Users\redes>
C:\Users\redes>arp -a

Interface: 192.168.1.11 --- 0xe
    Internet Address      Physical Address      Type
    192.168.1.1          00-12-d9-e3-a2-00    dynamic
    192.168.1.10         bc-30-5b-d0-4e-cb    dynamic
    192.168.1.255        ff-ff-ff-ff-ff-ff    static
    224.0.0.22           01-00-5e-00-00-16    static
    224.0.0.251         01-00-5e-00-00-fb    static
    224.0.0.252         01-00-5e-00-00-fc    static
    239.255.255.250      01-00-5e-7f-ff-fa    static

Interface: 192.168.56.1 --- 0x12
    Internet Address      Physical Address      Type
    192.168.56.255       ff-ff-ff-ff-ff-ff    static
    224.0.0.22           01-00-5e-00-00-16    static
    224.0.0.251         01-00-5e-00-00-fb    static
    224.0.0.252         01-00-5e-00-00-fc    static
    239.255.255.250      01-00-5e-7f-ff-fa    static

C:\Users\redes>
```

Host 2 – Durant e:

```

C:\Users\redes>arp -a

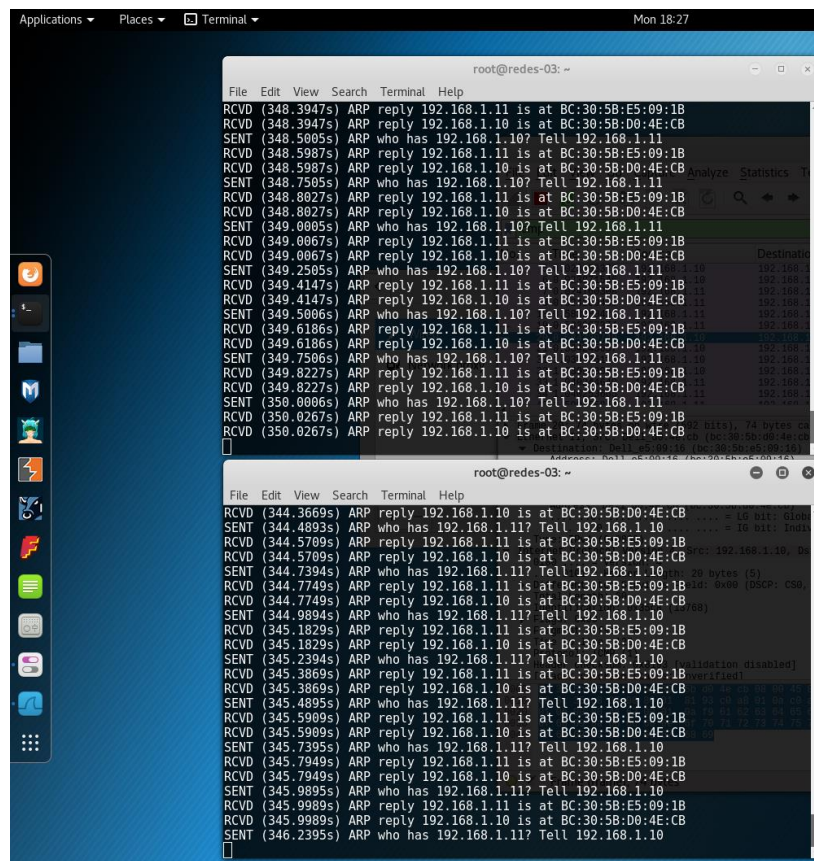
Interface: 192.168.1.11 --- 0xe
    Internet Address      Physical Address         Type
    192.168.1.1           00-12-d9-e3-a2-00       dynamic
    192.168.1.10          bc-30-5b-e5-09-16       dynamic
    192.168.1.12          bc-30-5b-e5-09-16       dynamic
    192.168.1.255         ff-ff-ff-ff-ff-ff       static
    224.0.0.22            01-00-5e-00-00-16       static
    224.0.0.251          01-00-5e-00-00-fb       static
    224.0.0.252          01-00-5e-00-00-fc       static
    239.255.255.250      01-00-5e-7f-ff-fa       static

Interface: 192.168.56.1 --- 0x12
    Internet Address      Physical Address         Type
    192.168.56.255       ff-ff-ff-ff-ff-ff       static
    224.0.0.22           01-00-5e-00-00-16       static
    224.0.0.251          01-00-5e-00-00-fb       static
    224.0.0.252          01-00-5e-00-00-fc       static
    239.255.255.250      01-00-5e-7f-ff-fa       static

C:\Users\redes>ping 192.168.1.10 -t

```

3. Ataque des de Kali Linux:



Host 1:

[illegible]

Host 2:

```

C:\ Command Prompt

192.168.56.255      ff-ff-ff-ff-ff-ff      static
224.0.0.22         01-00-5e-00-00-16      static
224.0.0.251        01-00-5e-00-00-fb      static
224.0.0.252        01-00-5e-00-00-fc      static
239.255.255.250    01-00-5e-7f-ff-fa      static

C:\Users\redes>arp -a

Interface: 192.168.1.11 --- 0xe
    Internet Address      Physical Address      Type
192.168.1.1              00-12-d9-e3-a2-00      dynamic
192.168.1.10             bc-30-5b-e5-09-16      dynamic
192.168.1.12             bc-30-5b-e5-09-16      dynamic
192.168.1.255            ff-ff-ff-ff-ff-ff      static
224.0.0.22               01-00-5e-00-00-16      static
224.0.0.251              01-00-5e-00-00-fb      static
224.0.0.252              01-00-5e-00-00-fc      static
239.255.255.250          01-00-5e-7f-ff-fa      static

Interface: 192.168.56.1 --- 0x12
    Internet Address      Physical Address      Type
192.168.56.255           ff-ff-ff-ff-ff-ff      static
224.0.0.22               01-00-5e-00-00-16      static
224.0.0.251              01-00-5e-00-00-fb      static
224.0.0.252              01-00-5e-00-00-fc      static
239.255.255.250          01-00-5e-7f-ff-fa      static

C:\Users\redes>

```

5. Cont enido de paquet e de WireShark:

The image shows a Wireshark packet capture window titled '*eth0'. The filter bar is set to 'icmp'. The packet list shows several ICMP Echo (ping) requests and replies. The selected packet is packet 20, which is an Echo (ping) reply from 192.168.1.11 to 192.168.1.10. The packet details pane shows the following structure:

- Frame 20: 74 bytes on wire (592 bits), 74 bytes captured (592 bits) on interface 0
- Ethernet II, Src: Dell_d0:4e:cb (bc:30:5b:d0:4e:cb), Dst: Dell_e5:09:16 (bc:30:5b:e5:09:16)
 - Destination: Dell_e5:09:16 (bc:30:5b:e5:09:16)
 - Address: Dell_e5:09:16 (bc:30:5b:e5:09:16)
 -0..... = L6 bit: Globally unique address (factory default)
 -0..... = IG bit: Individual address (unicast)
 - Source: Dell_d0:4e:cb (bc:30:5b:d0:4e:cb)
 - Address: Dell_d0:4e:cb (bc:30:5b:d0:4e:cb)
 -0..... = L6 bit: Globally unique address (factory default)
 -0..... = IG bit: Individual address (unicast)
 - Type: IPv4 (0x0800)
- Internet Protocol Version 4, Src: 192.168.1.10, Dst: 192.168.1.11
 - 0100 = Version: 4
 -0101 = Header Length: 20 bytes (5)
 - Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
 - Total Length: 60
 - Identification: 0x35c8 (13768)
 - Flags: 0x00
 - Fragment offset: 0
 - Time to live: 128
 - Protocol: ICMP (1)
 - Header checksum: 0x8193 [validation disabled]
 - [Header checksum status: Unverified]
- ICMP Echo (ping) reply
 - Id: 0x0001, Seq: 2809/63754, Ttl: 128

The packet bytes pane shows the raw data in hexadecimal and ASCII:

```
0000 bc 30 5b e5 09 16 bc 30 5b d0 4e cb 08 00 45 00  .0[...0[N...E.
0010 00 3c 35 c8 00 00 80 01 81 93 c0 a8 01 0a c0 a8  <5.....
0020 01 0b 00 00 4a 62 00 01 0a f9 61 62 63 64 65 66  ....Jb...abcde
0030 67 68 69 6a 6b 6c 6d 6e 6f 70 71 72 73 74 75 76  ghijklmn opqrst
0040 77 61 62 63 64 65 66 67 68 69  wabcdegh hi
```

The status bar at the bottom indicates: Frame (frame), 74 bytes | Packets: 2775 · Displayed: 850 (30.6%) | Profile: Default