

Brandon Harris
11/21/2024
Linux For Cybersecurity

Task A

Mode

Network Adapter NAT

Screenshot for questions 1 - 4

```
(kali@kali)-[~]
$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.233.142 netmask 255.255.255.0 broadcast 192.168.233.255
    inet6 fe80::7fb1:d70e:fe29:5569 prefixlen 64 scopeid 0x20<link>
    ether 00:0c:29:35:be:6f txqueuelen 1000 (Ethernet)
    RX packets 106 bytes 8166 (7.9 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 56 bytes 5920 (5.7 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 4 bytes 240 (240.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 4 bytes 240 (240.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

(kali@kali)-[~]
$ route
Kernel IP routing table
Destination Gateway Genmask Flags Metric Ref Use Iface
default 192.168.233.2 0.0.0.0 UG 100 0 0 eth0
192.168.233.0 0.0.0.0 255.255.255.0 U 100 0 0 eth0

(kali@kali)-[~]
$ netstat -at
Active Internet connections (servers and established)
Proto Recv-Q Send-Q Local Address Foreign Address State

(kali@kali)-[~]
$ ping -c 10 ubuntu.com
PING ubuntu.com (185.125.190.20) 56(84) bytes of data.
64 bytes from website-content-cache-1.ps5.canonical.com (185.125.190.20): icmp_seq=1 ttl=128 time=81.2 ms
64 bytes from website-content-cache-1.ps5.canonical.com (185.125.190.20): icmp_seq=2 ttl=128 time=81.0 ms
64 bytes from website-content-cache-1.ps5.canonical.com (185.125.190.20): icmp_seq=3 ttl=128 time=80.0 ms
64 bytes from website-content-cache-1.ps5.canonical.com (185.125.190.20): icmp_seq=4 ttl=128 time=83.2 ms
64 bytes from website-content-cache-1.ps5.canonical.com (185.125.190.20): icmp_seq=5 ttl=128 time=82.2 ms
64 bytes from website-content-cache-1.ps5.canonical.com (185.125.190.20): icmp_seq=6 ttl=128 time=82.0 ms
64 bytes from website-content-cache-1.ps5.canonical.com (185.125.190.20): icmp_seq=7 ttl=128 time=81.6 ms
64 bytes from website-content-cache-1.ps5.canonical.com (185.125.190.20): icmp_seq=8 ttl=128 time=82.3 ms
64 bytes from website-content-cache-1.ps5.canonical.com (185.125.190.20): icmp_seq=9 ttl=128 time=82.2 ms
64 bytes from website-content-cache-1.ps5.canonical.com (185.125.190.20): icmp_seq=10 ttl=128 time=83.3 ms

— ubuntu.com ping statistics —
10 packets transmitted, 10 received, 0% packet loss, time 9013ms
rtt min/avg/max/mdev = 79.970/81.885/83.255/0.949 ms
```

Screenshot for questions 5 - 7

```
(kali㉿kali)-[~]  
$ host www.odu.edu  
www.odu.edu has address 35.170.140.174  
  
(kali㉿kali)-[~]  
$ cat /etc/hostname  
kali  
  
(kali㉿kali)-[~]  
$ cat /etc/resolv.conf  
# Generated by NetworkManager  
search localdomain  
nameserver 192.168.233.2
```

Screenshot for question 8

```
(kali㉿kali)-[~]  
$ sudo nano /etc/hostname  
[sudo] password for kali:  
  
(kali㉿kali)-[~]  
$ cat /etc/hostname  
Bharr040
```

Task B

Mode

Network Adapter Bridged (Automatic)

Screenshot for question 1

```
(kali@Bharr040)-[~]
$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet6 fe80::7fb1:d70e:fe29:5569 prefixlen 64 scopeid 0x20<link>
    ether 00:0c:29:35:be:6f txqueuelen 1000 (Ethernet)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 59 bytes 10605 (10.3 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 4 bytes 240 (240.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 4 bytes 240 (240.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

The differences That I noticed is that the MAC address had changed and their is no IPV4 address and network mask.

Screenshot for question 2

```
(kali@Bharr040)-[~]
$ route
Kernel IP routing table
Destination        Gateway            Genmask           Flags Metric Ref    Use Iface
```

Their now no routing table entry

Screenshot for question 3

```
(kali@Bharr040)-[~]
$ netstat -at
Active Internet connections (servers and established)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
```

There is no difference because I have not active tcp connection to the machine

Screenshot for question 4

```
(kali@Bharr040)-[~]  
$ ping -c 10 ubuntu.com  
ping: ubuntu.com: Temporary failure in name resolution
```

The ping command does not work

Screenshot for question 5

```
(kali@Bharr040)-[~]  
$ host www.odu.edu  
;; UDP setup with 192.168.233.2#53(192.168.233.2) for www.odu.edu failed: network unreachable.  
;; UDP setup with 192.168.233.2#53(192.168.233.2) for www.odu.edu failed: network unreachable.
```

The host command fails

Screenshot for question 6 and 7

```
(kali@Bharr040)-[~]  
$ cat /etc/hostname  
Bharr040  
  
(kali@Bharr040)-[~]  
$ cat /etc/resolv.conf  
# Generated by NetworkManager  
search localdomain  
nameserver 192.168.233.2
```

The hostname remains the same while the nameserver is also the same