

**AIM:** "Linux Network Analysis and ARP Poisoning

Linux Network Analysis:

- o Execute the ifconfig command to retrieve network interface information.
- o Use the ping command to test network connectivity and analyze the output.
- o Analyze the netstat command output to view active network connections.
- o Perform a traceroute to trace the route packets take to reach a target host.

**Step 1:** Type tracert and type [www.oneplus.com](http://www.oneplus.com) press "Enter".

```
Administrator: Command Prompt
C:\Windows\system32>tracert www.oneplus.com

Tracing route to e10580.dscf.akamaiedge.net [23.41.71.236]
over a maximum of 30 hops:

  0  8 ms  9 ms  11 ms  192.168.1.1
  1  66 ms  65 ms  62 ms  comp61 [0.0.0.0]
  2  61 ms  59 ms  50 ms  125.99.48.49
  3  70 ms  69 ms  69 ms  203.212.193.26
  4  70 ms  71 ms  65 ms  202.88.130.237
  5  105 ms  71 ms  72 ms  aes-static-113.114.144.59.airtel.in [59.144.114.113]
  6
  7  163 ms  163 ms  175 ms  182.79.205.188
  8  113 ms  132 ms  143 ms  te0-5-0-17.br02.hkg15.pccwbtn.net [63.217.17.153]
  9  143 ms  147 ms  149 ms  global-technology.pos3-13.ar01.hkg04.pccwbtn.net [63.217.3.14]
 10  147 ms  146 ms  145 ms  a23-41-71-236.deploy.static.akamaitechnologies.com [23.41.71.236]

Trace complete.
```

**tep 2:** Ping all the IP address

>ipconfig

```
C:\Windows\system32>ipconfig

Windows IP Configuration

Ethernet adapter Npcap Loopback Adapter:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::e0f9:2fdc:cdc7:7bfe%28
    Autoconfiguration IPv4 Address. . : 169.254.123.254
    Subnet Mask . . . . . : 255.255.0.0
    Default Gateway . . . . . : 

Ethernet adapter Ethernet:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::a560:66a0:a556:5eaf%14
    IPv4 Address. . . . . : 192.168.1.61
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.1.1
```

>ping 91.240.109.42

```
C:\Windows\system32>ping 91.240.109.42

Pinging 91.240.109.42 with 32 bytes of data:
Reply from 91.240.109.42: bytes=32 time=175ms TTL=53
Reply from 91.240.109.42: bytes=32 time=173ms TTL=53
Reply from 91.240.109.42: bytes=32 time=173ms TTL=53
Reply from 91.240.109.42: bytes=32 time=171ms TTL=53

Ping statistics for 91.240.109.42:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 171ms, Maximum = 175ms, Average = 173ms
```

### Step 3: netstat

```
C:\Windows\system32>netstat

Active Connections

Proto Local Address          Foreign Address         State
TCP    192.168.1.61:1137       e1:https                ESTABLISHED
TCP    192.168.1.61:1146       131.253.33.254:https    ESTABLISHED
TCP    192.168.1.61:1153       e1-ha:https             ESTABLISHED
TCP    192.168.1.61:1200       e3-ha:https             ESTABLISHED
TCP    192.168.1.61:1201       e3-ha:https             ESTABLISHED
TCP    192.168.1.61:1203       e1:https                ESTABLISHED
TCP    192.168.1.61:1273       server-52-222-136-21:https CLOSE_WAIT
TCP    192.168.1.61:1281       e2:https                ESTABLISHED
TCP    192.168.1.61:1309       151.101.38.110:https    ESTABLISHED
TCP    192.168.1.61:1340       media-router-fp2:https  ESTABLISHED
TCP    192.168.1.61:1341       media-router-fp2:https  ESTABLISHED
TCP    192.168.1.61:1552       52.230.3.194:https      ESTABLISHED
TCP    192.168.1.61:1574       dialup-mum-203:https    ESTABLISHED
TCP    192.168.1.61:1634       COMP53:ms-do            ESTABLISHED
TCP    192.168.1.61:7680       comp151:1748            ESTABLISHED
TCP    192.168.1.61:7680       comp66:26329            ESTABLISHED
TCP    192.168.1.61:7680       comp150:1667            ESTABLISHED
TCP    192.168.1.61:7680       192.168.1.163:1651     ESTABLISHED
```

### Step 4: ifconfig

**CONCLUSION:** The Commands are successfully executed.