

```
wolfpunksub@wolfpunksub-VirtualBox:~$ ifconfig -a
docker0: flags=4099<UP,BROADCAST,MULTICAST> mtu 1500
    inet 172.17.0.1 netmask 255.255.0.0 broadcast 172.17.255.255
    ether 02:42:7b:9c:67:ce txqueuelen 0 (Ethernet)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 0 bytes 0 (0.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 10.0.2.15 netmask 255.255.255.0 broadcast 10.0.2.255
    inet6 fe80::4b09:af07:7ea4:6a14 prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:19:f8:40 txqueuelen 1000 (Ethernet)
    RX packets 254069 bytes 379486613 (379.4 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 33719 bytes 2191657 (2.1 MB)
    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 409 bytes 41713 (41.7 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 409 bytes 41713 (41.7 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

```
wolfpunksub@wolfpunksub-VirtualBox:~$ netstat -n
Active Internet connections (w/o servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
tcp        0      0 10.0.2.15:42880        34.122.121.32:80      ESTABLISHED
udp        0      0 10.0.2.15:68          10.0.2.2:67          ESTABLISHED

Active UNIX domain sockets (w/o servers)
Proto RefCnt Flags               Type                   State                  I-Node   Path
unix    2      [ ]                 DGRAM                 CONNECTED              30167    /var/lib/samba/private/msg.sock/924
unix    4      [ ]                 DGRAM                 CONNECTED              15689    /run/systemd/notify
unix    2      [ ]                 DGRAM                 CONNECTED              32361    /run/user/1000/systemd/notify
unix    2      [ ]                 DGRAM                 CONNECTED              15703    /run/systemd/journal/syslog
unix   15      [ ]                 DGRAM                 CONNECTED              15713    /run/systemd/journal/dev-log
unix    8      [ ]                 DGRAM                 CONNECTED              15717    /run/systemd/journal/socket
unix    2      [ ]                 DGRAM                 CONNECTED              29524    /var/lib/samba/private/msg.sock/861
unix    2      [ ]                 DGRAM                 CONNECTED              30168    /var/lib/samba/private/msg.sock/923
unix    2      [ ]                 DGRAM                 CONNECTED              30164    /var/lib/samba/private/msg.sock/913
unix    2      [ ]                 DGRAM                 CONNECTED              30195    /var/lib/samba/private/msg.sock/926
unix    3      [ ]                 STREAM                CONNECTED              35939    /run/systemd/journal/stdout
unix    3      [ ]                 STREAM                CONNECTED              26899
```

```
wolfpunksub@wolfpunksub-VirtualBox:~$ netstat -a
Active Internet connections (servers and established)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
tcp        0      0 0.0.0.0:netbios-ssn    0.0.0.0:*               LISTEN
tcp        0      0 localhost:domain        0.0.0.0:*               LISTEN
tcp        0      0 0.0.0.0:microsoft-ds   0.0.0.0:*               LISTEN
tcp        0      0 localhost:mysql         0.0.0.0:*               LISTEN
tcp        0      0 localhost:ipp           0.0.0.0:*               LISTEN
tcp        0      0 localhost:33060         0.0.0.0:*               LISTEN
tcp6       0      0 [::]:netbios-ssn       [::]:*                  LISTEN
tcp6       0      0 [::]:microsoft-ds      [::]:*                  LISTEN
tcp6       0      0 ip6-localhost:ipp      [::]:*                  LISTEN
udp        0      0 0.0.0.0:631            0.0.0.0:*               LISTEN
udp        0      0 0.0.0.0:mdns           0.0.0.0:*               LISTEN
udp        0      0 0.0.0.0:38353          0.0.0.0:*               LISTEN
udp        0      0 localhost:domain        0.0.0.0:*
```

```
wolfpunksub@wolfpunksub-VirtualBox:~$ netstat -i
Kernel Interface table
Iface    MTU     RX-OK RX-ERR RX-DRP RX-OVR    TX-OK TX-ERR TX-DRP TX-OVR Flg
docker0  1500      0      0      0      0        0      0      0      0 BMU
enp0s3   1500 254093      0      0      0    33775      0      0      0 BMRU
lo       65536    452      0      0      0      452      0      0      0 LRU
```

```
wolfpunksub@wolfpunksub-VirtualBox:~$ netstat -e
Active Internet connections (w/o servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State       User        Inode
udp        0      0 wolfpunksub-Virt:bootpc _gateway:bootps        ESTABLISHED root        28970
Active UNIX domain sockets (w/o servers)
Proto RefCnt Flags     Type       State      I-Node   Path
unix    2      [ ]       DGRAM     CONNECTED  30167    /var/lib/samba/private/msg.sock/924
unix    4      [ ]       DGRAM     CONNECTED  15689    /run/systemd/notify
unix    2      [ ]       DGRAM     CONNECTED  32361    /run/user/1000/systemd/notify
unix    2      [ ]       DGRAM     CONNECTED  15703    /run/systemd/journal/syslog
unix   16      [ ]       DGRAM     CONNECTED  15713    /run/systemd/journal/dev-log
unix    8      [ ]       DGRAM     CONNECTED  15717    /run/systemd/journal/socket
unix    2      [ ]       DGRAM     CONNECTED  29524    /var/lib/samba/private/msg.sock/861
unix    2      [ ]       DGRAM     CONNECTED  30168    /var/lib/samba/private/msg.sock/923
unix    2      [ ]       DGRAM     CONNECTED  30164    /var/lib/samba/private/msg.sock/913
unix    2      [ ]       DGRAM     CONNECTED  30195    /var/lib/samba/private/msg.sock/926
unix    3      [ ]       STREAM    CONNECTED  35939    /run/systemd/journal/stdout
unix    3      [ ]       STREAM    CONNECTED  26899
```

```
wolfpunksub@wolfpunksub-VirtualBox:~$ ping 10.0.2.2
PING 10.0.2.2 (10.0.2.2) 56(84) bytes of data.
64 bytes from 10.0.2.2: icmp_seq=1 ttl=64 time=0.277 ms
64 bytes from 10.0.2.2: icmp_seq=2 ttl=64 time=0.383 ms
64 bytes from 10.0.2.2: icmp_seq=3 ttl=64 time=0.160 ms
64 bytes from 10.0.2.2: icmp_seq=4 ttl=64 time=0.225 ms
64 bytes from 10.0.2.2: icmp_seq=5 ttl=64 time=0.253 ms
64 bytes from 10.0.2.2: icmp_seq=6 ttl=64 time=0.157 ms
64 bytes from 10.0.2.2: icmp_seq=7 ttl=64 time=0.196 ms
64 bytes from 10.0.2.2: icmp_seq=8 ttl=64 time=0.147 ms
64 bytes from 10.0.2.2: icmp_seq=9 ttl=64 time=0.376 ms
64 bytes from 10.0.2.2: icmp_seq=10 ttl=64 time=0.359 ms
64 bytes from 10.0.2.2: icmp_seq=11 ttl=64 time=0.281 ms
```

```
wolfpunksub@wolfpunksub-VirtualBox:~$ arp -a
_gateway (10.0.2.2) at 52:54:00:12:35:02 [ether] on enp0s3
```

```
wolfpunksub@wolfpunksub-VirtualBox:~$ ftp 192.168.1.1
Connected to 192.168.1.1.
220 localhost.localdomain FTP server (GNU inetutils 1.9.4) ready.
Name (192.168.1.1:wolfpunksub):
```

```
wolfpunksub@wolfpunksub-VirtualBox:~$ finger -p wolfpunksub
Login: wolfpunksub                Name: WOLFPUNKSUB
Directory: /home/wolfpunksub      Shell: /bin/bash
On since Wed Apr 12 20:42 (IST) on :0 from :0 (messages off)
No mail.
```

Client:-

```
wolfpunksub@wolfpunksub-VirtualBox:~/Desktop/cn$ cc ftpclient.c
wolfpunksub@wolfpunksub-VirtualBox:~/Desktop/cn$ ./a.out
connected
Enter:-udpclient.c
SREE NARAYANA GURUKULAM COLLEGE OF ENGG
```

Server:-

```
wolfpunksub@wolfpunksub-VirtualBox:~/Desktop/cn$ cc ftpserver.c
wolfpunksub@wolfpunksub-VirtualBox:~/Desktop/cn$ ./a.out

Connection accepted from 10.0.2.15
file Name received is udpclient.c
file data sentwolfpunksub@wolfpunksub-VirtualBox:~/Desktop/cn$
```