

***netstat* command**

netstat command is ubiquitous in most Unix and Windows implementations. It can be used to get information about various aspects of your current network status.

Here is the output from *netstat -an* command on the linux workstation in HUM301. Only part of the output is shown.

we will learn the significance of the different fields in the output later in the course

```
hum301-01:~$ netstat -an
Active Internet connections (servers and established)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
tcp      0      0 0.0.0.0:32770           0.0.0.0:*               LISTEN
tcp      0      0 0.0.0.0:32775           0.0.0.0:*               LISTEN
tcp      0      0 0.0.0.0:111            0.0.0.0:*               LISTEN
tcp      0      0 127.0.0.1:631          0.0.0.0:*               LISTEN
tcp      0      0 127.0.0.1:25           0.0.0.0:*               LISTEN
tcp      0      0 127.0.0.1:6010         0.0.0.0:*               LISTEN
tcp      0      0 137.140.4.101:799      137.140.7.101:2049      ESTABLISHED
tcp      0      0 137.140.4.101:798      137.140.7.101:2049      ESTABLISHED
tcp      0      0 137.140.4.101:800      137.140.7.101:2049      ESTABLISHED
tcp      0      0 137.140.4.101:32810     137.140.7.101:636       ESTABLISHED
tcp      0      0 137.140.4.101:32788     137.140.7.101:636       ESTABLISHED
tcp      0      0 137.140.4.101:32787     137.140.7.101:636       ESTABLISHED
tcp      0      0 137.140.4.101:32769     137.140.7.101:636       ESTABLISHED
tcp      0      0 :::22                  :::*                     LISTEN
tcp      0      0 ::1:6010                :::*                     LISTEN
tcp      0 2560 :::ffff:137.140.4.101:22 :::ffff:68.174.242.175:54933 ESTABLISHED
udp      0      0 0.0.0.0:32768          0.0.0.0:*               *
udp      0      0 0.0.0.0:32769          0.0.0.0:*               *
udp      0      0 0.0.0.0:514            0.0.0.0:*               *
udp      0      0 0.0.0.0:984            0.0.0.0:*               *
udp      0      0 0.0.0.0:111            0.0.0.0:*               *
```

Output from *netstat -ar* command:

we will learn later that this gives the routing table on this host machine

```
hum301-01:~$ netstat -ar
Kernel IP routing table
Destination      Gateway          Genmask         Flags   MSS Window  irtt  Iface
137.140.4.0      *               255.255.255.0   U        0 0        0  eth0
169.254.0.0      *               255.255.0.0     U        0 0        0  eth0
default          137.140.4.250   0.0.0.0         UG       0 0        0  eth0
hum301-01:~$ █
```

netstat with /help switch run
on a Windows XP machine

```
C:\>
C:\>netstat /help

Displays protocol statistics and current TCP/IP network connections.

NETSTAT [-a] [-e] [-n] [-o] [-s] [-p proto] [-r] [interval]

-a          Displays all connections and listening ports.
-e          Displays Ethernet statistics. This may be combined with the -s
            option.
-n          Displays addresses and port numbers in numerical form.
-o          Displays the owning process ID associated with each connection.
-p proto    Shows connections for the protocol specified by proto; proto
            may be any of: TCP, UDP, TCPv6, or UDPv6. If used with the -s
            option to display per-protocol statistics, proto may be any of:
            IP, IPv6, ICMP, ICMPv6, TCP, TCPv6, UDP, or UDPv6.
-r          Displays the routing table.
-s          Displays per-protocol statistics. By default, statistics are
            shown for IP, IPv6, ICMP, ICMPv6, TCP, TCPv6, UDP, and UDPv6;
            the -p option may be used to specify a subset of the default.
interval    Redisplays selected statistics, pausing interval seconds
            between each display. Press CTRL+C to stop redisplaying
            statistics. If omitted, netstat will print the current
            configuration information once.

C:\>_
```