NETSTAT

CHECK ALL PORT AVAILABLE INFORMATION

```
[root@vivek p]# netstat
Active Internet connections (w/o servers)
Proto Recv-Q Send-Q Local Address        Foreign Address        State
Active UNIX domain sockets (w/o servers)
Proto RefCnt Flags       Type       State        I-Node   Path
unix  2      [ ]         DGRAM                    30802    /var/run/chrony/chronyd.sock
unix  2      [ ]         DGRAM                    44386    /run/user/2000/systemd/notify
unix  2      [ ]         DGRAM                    38253    /run/user/42/systemd/notify
unix  3      [ ]         DGRAM                    12939    /run/systemd/notify
unix  2      [ ]         DGRAM                    12941    /run/systemd/cgroups-agent
unix  25     [ ]         DGRAM                    12952    /run/systemd/journal/dev-log
unix  8      [ ]         DGRAM                    12964    /run/systemd/journal/socket
unix  3      [ ]         STREAM     CONNECTED     49147    /run/systemd/journal/stdout
unix  3      [ ]         STREAM     CONNECTED     48906    /run/user/2000/bus
unix  3      [ ]         STREAM     CONNECTED     44322
unix  3      [ ]         STREAM     CONNECTED     41000    @/tmp/dbus-d8BX9DLJWr
unix  3      [ ]         STREAM     CONNECTED     36601    /run/user/42/bus
unix  3      [ ]         STREAM     CONNECTED     36921
unix  3      [ ]         STREAM     CONNECTED     51537
unix  3      [ ]         STREAM     CONNECTED     48222
unix  3      [ ]         STREAM     CONNECTED     45885
```

CHECK ALL PORT

```
[root@vivek p]# 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:sunrpc         0.0.0.0:*              LISTEN
tcp        0      0 vivek.gandhi.com:domain 0.0.0.0:*             LISTEN
tcp        0      0 0.0.0.0:ssh            0.0.0.0:*              LISTEN
tcp        0      0 localhost:ipp          0.0.0.0:*              LISTEN
tcp6       0      0 [::]:sunrpc            [::]:*                 LISTEN
tcp6       0      0 [::]:ftp               [::]:*                 LISTEN
tcp6       0      0 [::]:ssh               [::]:*                 LISTEN
tcp6       0      0 localhost:ipp          [::]:*                 LISTEN
udp        0      0 vivek.gandhi.com:domain 0.0.0.0:*
udp        0      0 0.0.0.0:bootps         0.0.0.0:*
udp        0      0 0.0.0.0:sunrpc         0.0.0.0:*
udp        0      0 0.0.0.0:39069          0.0.0.0:*
udp        0      0 0.0.0.0:mdns           0.0.0.0:*
udp        0      0 localhost:323          0.0.0.0:*
udp6       0      0 [::]:39958             [::]:*
udp6       0      0 [::]:sunrpc            [::]:*
```

ONLY TCP PORT SHOW

```
[root@vivek p]# netstat -at
Active Internet connections (servers and established)
Proto Recv-Q Send-Q Local Address          Foreign Address        State
tcp        0      0 0.0.0.0:sunrpc         0.0.0.0:*              LISTEN
tcp        0      0 vivek.gandhi.com:domain 0.0.0.0:*             LISTEN
tcp        0      0 0.0.0.0:ssh            0.0.0.0:*              LISTEN
tcp        0      0 localhost:ipp          0.0.0.0:*              LISTEN
tcp6       0      0 [::]:sunrpc            [::]:*                 LISTEN
tcp6       0      0 [::]:ftp               [::]:*                 LISTEN
tcp6       0      0 [::]:ssh               [::]:*                 LISTEN
tcp6       0      0 localhost:ipp          [::]:*                 LISTEN
```

ONLY UDP PORT SHOW

```
tcp6       0      0 localhost:ipp          [::]:*                 LISTEN
[root@vivek p]# netstat -au
Active Internet connections (servers and established)
Proto Recv-Q Send-Q Local Address          Foreign Address        State
udp        0      0 vivek.gandhi.com:domain 0.0.0.0:*
udp        0      0 0.0.0.0:bootps         0.0.0.0:*
udp        0      0 0.0.0.0:sunrpc         0.0.0.0:*
udp        0      0 0.0.0.0:39069          0.0.0.0:*
udp        0      0 0.0.0.0:mdns           0.0.0.0:*
udp        0      0 localhost:323          0.0.0.0:*
udp6       0      0 [::]:39958             [::]:*
udp6       0      0 [::]:sunrpc            [::]:*
udp6       0      0 [::]:mdns              [::]:*
udp6       0      0 localhost:323          [::]:*
[root@vivek p]#
```

NETSTAT

ONLY UNIX BASED PORT SHOW

```
[root@vivek p]# netstat -ax
Active UNIX domain sockets (servers and established)
Proto RefCnt Flags        Type      State       I-Node   Path
unix  2      [ ACC ]      STREAM    LISTENING   43931    @/tmp/.ICE-unix/2198
unix  2      [ ACC ]      STREAM    LISTENING   15309    @/org/kernel/linux/storage/multipathd
unix  2      [ ACC ]      STREAM    LISTENING   38511    @/tmp/.ICE-unix/1780
unix  2      [ ACC ]      STREAM    LISTENING   43675    /tmp/.esd-2000/socket
unix  2      [ ACC ]      STREAM    LISTENING   45342    @/tmp/.X11-unix/X0
unix  2      [ ACC ]      STREAM    LISTENING   39052    /tmp/.X11-unix/X1024
unix  2      [ ACC ]      STREAM    LISTENING   39196    @/tmp/dbus-rVTSdFCI
unix  2      [ ACC ]      STREAM    LISTENING   30778    /var/run/lsm/ipc/simc
```

ONLY LISTENING BASED PORT SHOW

```
[root@vivek p]# netstat -l
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
tcp        0      0 0.0.0.0:sunrpc          0.0.0.0:*               LISTEN
tcp        0      0 vivek.gandhi.com:domain 0.0.0.0:*               LISTEN
tcp        0      0 0.0.0.0:ssh             0.0.0.0:*               LISTEN
tcp        0      0 localhost:ipp           0.0.0.0:*               LISTEN
tcp6       0      0 [::]:sunrpc             [::]:*                  LISTEN
tcp6       0      0 [::]:ftp                [::]:*                  LISTEN
tcp6       0      0 [::]:ssh                [::]:*                  LISTEN
tcp6       0      0 localhost:ipp           [::]:*                  LISTEN
udp        0      0 vivek.gandhi.com:domain 0.0.0.0:*
```

ONLY TCP LISTENING BASED PORT SHOW

```
[root@vivek p]# netstat -lt
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
tcp        0      0 0.0.0.0:sunrpc          0.0.0.0:*               LISTEN
tcp        0      0 vivek.gandhi.com:domain 0.0.0.0:*               LISTEN
tcp        0      0 0.0.0.0:ssh             0.0.0.0:*               LISTEN
tcp        0      0 localhost:ipp           0.0.0.0:*               LISTEN
tcp6       0      0 [::]:sunrpc             [::]:*                  LISTEN
tcp6       0      0 [::]:ftp                [::]:*                  LISTEN
tcp6       0      0 [::]:ssh                [::]:*                  LISTEN
tcp6       0      0 localhost:ipp           [::]:*                  LISTEN
[root@vivek p]#
```

ONLY UDP LISTENING BASED PORT SHOW

```
[root@vivek p]# netstat -lu
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
udp        0      0 vivek.gandhi.com:domain 0.0.0.0:*
udp        0      0 0.0.0.0:bootps          0.0.0.0:*
udp        0      0 0.0.0.0:sunrpc          0.0.0.0:*
udp        0      0 0.0.0.0:39069           0.0.0.0:*
udp        0      0 0.0.0.0:mdns            0.0.0.0:*
udp        0      0 localhost:323           0.0.0.0:*
udp6       0      0 [::]:39958              [::]:*
udp6       0      0 [::]:sunrpc             [::]:*
udp6       0      0 [::]:mdns               [::]:*
udp6       0      0 localhost:323           [::]:*
```

ONLY UNIX LISTENING BASED PORT SHOW

```
[root@vivek p]# netstat -lx
Active UNIX domain sockets (only servers)
Proto RefCnt Flags        Type      State       I-Node   Path
unix  2      [ ACC ]      STREAM    LISTENING   43931    @/tmp/.ICE-unix/2198
unix  2      [ ACC ]      STREAM    LISTENING   15309    @/org/kernel/linux/storage/multipathd
unix  2      [ ACC ]      STREAM    LISTENING   38511    @/tmp/.ICE-unix/1780
unix  2      [ ACC ]      STREAM    LISTENING   43675    /tmp/.esd-2000/socket
unix  2      [ ACC ]      STREAM    LISTENING   45342    @/tmp/.X11-unix/X0
unix  2      [ ACC ]      STREAM    LISTENING   39052    /tmp/.X11-unix/X1024
unix  2      [ ACC ]      STREAM    LISTENING   39196    @/tmp/dbus-rVTSdFCI
unix  2      [ ACC ]      STREAM    LISTENING   30778    /var/run/lsm/ipc/simc
unix  2      [ ACC ]      STREAM    LISTENING   29359    @irqbalance1023.sock
unix  2      [ ACC ]      STREAM    LISTENING   30780    /var/run/lsm/ipc/sim
unix  2      [ ACC ]      STREAM    LISTENING   38043    @/tmp/dbus-F201pu62
unix  2      [ ACC ]      STREAM    LISTENING   28304    @ISCSID_UIP_ABSTRACT_NAMESPACE
unix  2      [ ACC ]      STREAM    LISTENING   43932    /tmp/.ICE-unix/2198
```

NETSTAT

PROTOCOL STATISTIC CHECK

```
[root@vivek p]# netstat -s
Ip:
    Forwarding: 1
    332 total packets received
    0 forwarded
    0 incoming packets discarded
    108 incoming packets delivered
    256 requests sent out
    4 dropped because of missing route
```

TCP PROTOCOL STATISTIC CHECK

```
[root@vivek p]# netstat -st
IcmpMsg:
    InType3: 108
    OutType3: 108
    OutType8: 14
Tcp:
    0 active connection openings
    0 passive connection openings
    0 failed connection attempts
```

UDP PROTOCOL STATISTIC CHECK

```
    InNoEcrPkts: 508
[root@vivek p]# netstat -su
IcmpMsg:
    InType3: 108
    OutType3: 108
    OutType8: 14
Udp:
    0 packets received
    0 packets to unknown port received
    0 packet receive errors
```

SERVICE NAME WITH PROCESS ID CHECK

```
[root@vivek p]# netstat -tp
Active Internet connections (w/o servers)
Proto Recv-Q Send-Q Local Address      Foreign Address      State       PID/Program name
[root@vivek p]#
```

KERNEL IP ROUTING TABLE

```
[root@vivek p]# netstat -r
Kernel IP routing table
Destination    Gateway          Genmask          Flags   MSS Window   irtt Iface
default        _gateway         0.0.0.0          UG        0 0          0 ens160
_gateway       0.0.0.0          255.255.255.255  UH        0 0          0 ens160
192.168.10.0   0.0.0.0          255.255.255.0    U         0 0          0 ens160
192.168.122.0  0.0.0.0          255.255.255.0    U         0 0          0 virbr0
[root@vivek p]#
```

NETWORK INTERFACE WITH PACKET INFORMATION

```
192.168.122.0  0.0.0.0          255.255.255.0    U         0 0          0 virbr0
[root@vivek p]# netstat -i
Kernel Interface table
Iface          MTU    RX-OK RX-ERR RX-DRP RX-OVR    TX-OK TX-ERR TX-DRP TX-OVR Flg
ens160         1500     522      0    0 0             227      0      0      0 BMRU
lo             65536    114      0    0 0             114      0      0      0 LRU
virbr0         1500       0      0    0 0               0      0      0      0 BMU
```

NETSTAT

RECIVED PACKET ERROR OUTPUT SHOW

```
[root@vivek p]# netstat -ie
Kernel Interface table
ens160: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 192.168.10.2  netmask 255.255.255.0  broadcast 192.168.10.255
        inet6 fe80::4b9:cea9:aab8:d94d  prefixlen 64  scopeid 0x20<link>
        ether 00:0c:29:01:90:46  txqueuelen 1000  (Ethernet)
        RX packets 543  bytes 62809 (61.3 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 237  bytes 13456 (13.1 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
```

MULTICASTING GROUP CHECK

```
[root@vivek p]# netstat -g
IPv6/IPv4 Group Memberships
Interface       RefCnt Group
--------------- ------ ---------------------
lo              1      224.0.0.1
ens160          1      224.0.0.251
ens160          1      224.0.0.1
virbr0          1      224.0.0.251
virbr0          1      224.0.0.1
lo              1      ff02::1
lo              1      ff01::1
ens160          1      ff02::1:ffb8:d94d
ens160          1      ff02::fb
ens160          1      ff02::1
ens160          1      ff01::1
virbr0          1      ff02::1
virbr0          1      ff01::1
virbr0-nic      1      ff02::1
virbr0-nic      1      ff01::1
```

EXTEND COMMAND CONTINUES CHECK

```
[root@vivek p]# netstat -c
```

END COMMAND CTRL+C

CHECK NON SUPPORTIV ADRESS

```
[root@vivek p]# netstat -v
Active Internet connections (w/o servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
netstat: no support for `AF INET (sctp)' on this system.
netstat: no support for `AF INET (sctp)' on this system.
Active UNIX domain sockets (w/o servers)
Proto RefCnt Flags       Type       State         I-Node   Path
unix  2      [ ]         DGRAM                    30802    /var/run/chrony/chronyd.sock
unix  2      [ ]         DGRAM                    44386    /run/user/2000/systemd/notify
unix  2      [ ]         DGRAM                    38253    /run/user/42/systemd/notify
unix  3      [ ]         DGRAM                    12939    /run/systemd/notify
unix  2      [ ]         DGRAM                    12941    /run/systemd/cgroups-agent
unix  24     [ ]         DGRAM                    12952    /run/systemd/journal/dev-log
unix  8      [ ]         DGRAM                    12964    /run/systemd/journal/socket
```

CHECK PORT PROGARAM RUN

```
[root@vivek p]# netstat -ap |grep ssh
tcp        0      0 0.0.0.0:ssh             0.0.0.0:*               LISTEN      1199/sshd
tcp6       0      0 [::]:ssh                [::]:*                  LISTEN      1199/sshd
unix  2    [ ACC ]     STREAM     LISTENING     44885    2184/gnome-keyring- /run/user/2000/keyring/ssh
unix  3    [ ]         STREAM     CONNECTED     33013    1199/sshd
unix  2    [ ]         STREAM     CONNECTED     33337    1199/sshd
[root@vivek p]#
```

NETSTAT

PORT PROCESS RUNNING STATUS

```
[root@vivek p]# netstat -an |grep ssh
unix  2      [ ACC ]     STREAM     LISTENING     44885    /run/user/2000/keyring/ssh
[root@vivek p]#
```

RAW ENTRY STATAISCK

```
[root@vivek p]# netstat -s --raw
Ip:
    Forwarding: 1
    785 total packets received
    0 forwarded
    0 incoming packets discarded
    148 incoming packets delivered
    338 requests sent out
    4 dropped because of missing route
Icmp:
    148 ICMP messages received
    0 input ICMP message failed
    ICMP input histogram:
        destination unreachable: 148
    162 ICMP messages sent
```

MULTIPLE OPTION CHECK

```
[root@vivek p]#
[root@vivek p]# netstat -tupln | grep 22
tcp        0      0 192.168.122.1:53        0.0.0.0:*               LISTEN      1631/dnsmasq
tcp        0      0 0.0.0.0:22              0.0.0.0:*               LISTEN      1199/sshd
tcp6       0      0 :::22                   :::*                    LISTEN      1199/sshd
udp        0      0 192.168.122.1:53        0.0.0.0:*                           1631/dnsmasq
[root@vivek p]#
```