

Experiment No. 9

Aim: TCP/IP network administration: **ifconfig**, **ping**, **netstat**, **inetd**, **pppd**, etc.

1. ifconfig command:

```
sejalpawar@ubuntu:~$ ifconfig -s
Iface      MTU      RX-OK RX-ERR RX-DRP RX-OVR      TX-OK TX-ERR TX-DRP TX-OVR Flg
ens33      1500      98      0      0 0      124      0      0      0 BMRU
lo         65536     186      0      0 0      186      0      0      0 LRU
sejalpawar@ubuntu:~$
```

2. ping command:

```
sejalpawar@ubuntu:~$ ping -c 7 www.linux.com
PING www.linux.com (23.185.0.3) 56(84) bytes of data.
64 bytes from 23.185.0.3 (23.185.0.3): icmp_seq=1 ttl=128 time=80.1 ms
64 bytes from 23.185.0.3 (23.185.0.3): icmp_seq=2 ttl=128 time=38.7 ms
64 bytes from 23.185.0.3 (23.185.0.3): icmp_seq=3 ttl=128 time=76.7 ms
64 bytes from 23.185.0.3 (23.185.0.3): icmp_seq=4 ttl=128 time=73.2 ms
64 bytes from 23.185.0.3 (23.185.0.3): icmp_seq=5 ttl=128 time=72.6 ms
64 bytes from 23.185.0.3 (23.185.0.3): icmp_seq=6 ttl=128 time=69.4 ms
64 bytes from 23.185.0.3 (23.185.0.3): icmp_seq=7 ttl=128 time=67.7 ms

--- www.linux.com ping statistics ---
7 packets transmitted, 7 received, 0% packet loss, time 6795ms
rtt min/avg/max/mdev = 38.662/68.334/80.084/12.714 ms
sejalpawar@ubuntu:~$
```

3. netstat command (-lu shows listening udp connections only):

```
sejalpawar@ubuntu:~$ netstat -lu
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
udp      0      0 localhost:domain        0.0.0.0:*
udp      0      0 0.0.0.0:631             0.0.0.0:*
udp      0      0 0.0.0.0:mdns             0.0.0.0:*
udp      0      0 0.0.0.0:47215            0.0.0.0:*
udp6     0      0 [::]:40008              [::]:*
udp6     0      0 [::]:mdns                [::]:*
sejalpawar@ubuntu:~$
```

4. inetd command:

```
sejalpawar@ubuntu:~$ sudo systemctl start inetd
[sudo] password for sejalpawar:
sejalpawar@ubuntu:~$ sudo systemctl status inetd
● inetd.service - Internet superserver
   Loaded: loaded (/lib/systemd/system/inetd.service; enabled; vendor preset: enabled)
   Active: active (running) since Sat 2023-05-13 05:54:21 PDT; 9s ago
     Docs: man:inetd(8)
   Main PID: 6665 (inetd)
    Tasks: 1 (limit: 4918)
   Memory: 372.0K
   CGroup: /system.slice/inetd.service
           └─6665 /usr/sbin/inetd

May 13 05:54:21 ubuntu systemd[1]: Starting Internet superserver...
May 13 05:54:21 ubuntu systemd[1]: Started Internet superserver.
sejalpawar@ubuntu:~$
```

```
sejalpawar@ubuntu:~$ sudo systemctl stop inetd
sejalpawar@ubuntu:~$ sudo systemctl status inetd
● inetd.service - Internet superserver
   Loaded: loaded (/lib/systemd/system/inetd.service; enabled; vendor preset: enabled)
   Active: inactive (dead) since Sat 2023-05-13 05:55:11 PDT; 10s ago
     Docs: man:inetd(8)
   Process: 6665 ExecStart=/usr/sbin/inetd (code=exited, status=0/SUCCESS)
   Main PID: 6665 (code=exited, status=0/SUCCESS)

May 13 05:54:21 ubuntu systemd[1]: Starting Internet superserver...
May 13 05:54:21 ubuntu systemd[1]: Started Internet superserver.
May 13 05:55:11 ubuntu systemd[1]: Stopping Internet superserver...
May 13 05:55:11 ubuntu systemd[1]: inetd.service: Succeeded.
May 13 05:55:11 ubuntu systemd[1]: Stopped Internet superserver.
sejalpawar@ubuntu:~$
```

5. pppd command:

```
sejalpawar@ubuntu:~$ pppd
bash: /usr/sbin/pppd: Permission denied
sejalpawar@ubuntu:~$ sudo apt install pppd
[sudo] password for sejalpawar:
Reading package lists... Done
Building dependency tree
Reading state information... Done
E: Unable to locate package pppd
sejalpawar@ubuntu:~$
```

Practical Performance (4)	Writeup & Oral (4)	Attendance (2)	Total (10)