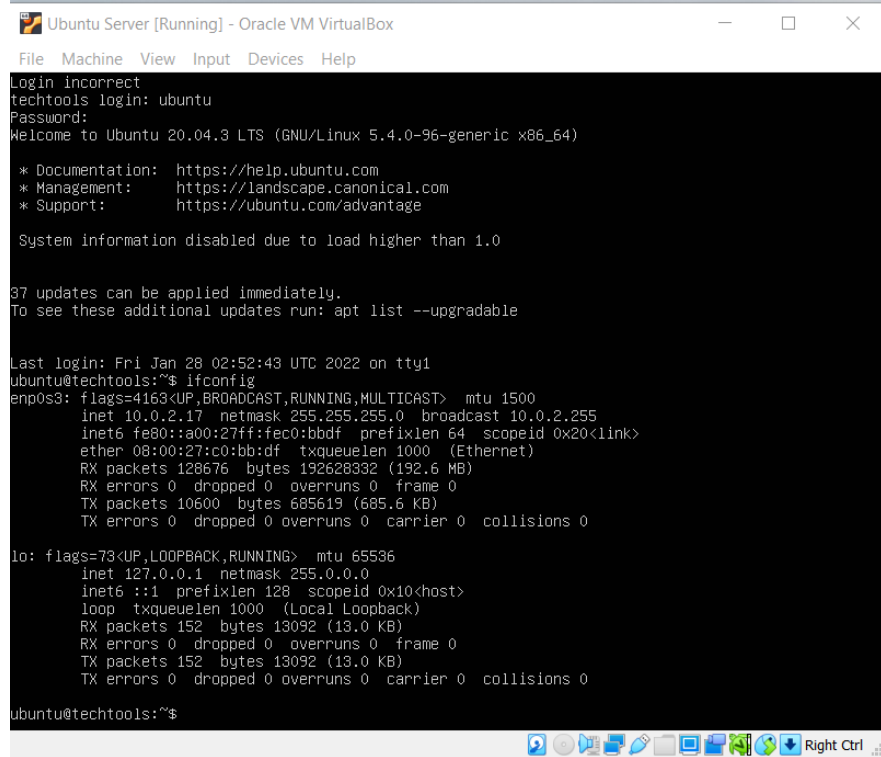


Matthew Zaldana

SID: 027008928

## 1. Screenshot of 'ifconfig' command

### a. Ubuntu Server

A screenshot of a terminal window titled "Ubuntu Server [Running] - Oracle VM VirtualBox". The terminal shows a login attempt for 'techtools' with the password 'ubuntu', which is incorrect. It then displays the Ubuntu 20.04.3 LTS welcome message and system information. The user runs the 'ifconfig' command, showing details for the 'enp0s3' (ethernet) and 'lo' (loopback) interfaces. The 'enp0s3' interface has an IP of 10.0.2.17 and a netmask of 255.255.255.0. The 'lo' interface has an IP of 127.0.0.1 and a netmask of 255.0.0.0. The terminal also shows the last login time and the user's current shell prompt.

```
Ubuntu Server [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

Login incorrect
techtools login: ubuntu
Password:
Welcome to Ubuntu 20.04.3 LTS (GNU/Linux 5.4.0-96-generic x86_64)

* Documentation:  https://help.ubuntu.com
* Management:    https://landscape.canonical.com
* Support:        https://ubuntu.com/advantage

System information disabled due to load higher than 1.0

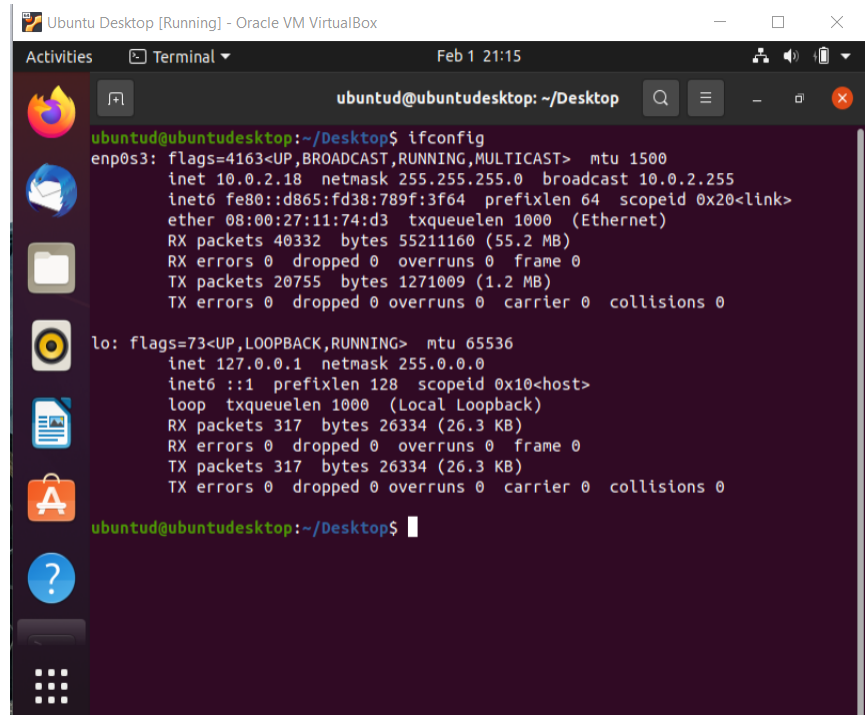
37 updates can be applied immediately.
To see these additional updates run: apt list --upgradable

Last login: Fri Jan 28 02:52:43 UTC 2022 on tty1
ubuntu@techtools:~$ ifconfig
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
    inet 10.0.2.17  netmask 255.255.255.0  broadcast 10.0.2.255
    inet6 fe80::a00:27ff:fec0:bbdf  prefixlen 64  scopeid 0x20<link>
    ether 08:00:27:c0:bb:df  txqueuelen 1000  (Ethernet)
    RX packets 128676  bytes 192628332 (192.6 MB)
    RX errors 0  dropped 0  overruns 0  frame 0
    TX packets 10600  bytes 685619 (685.6 KB)
    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 152  bytes 13092 (13.0 KB)
    RX errors 0  dropped 0  overruns 0  frame 0
    TX packets 152  bytes 13092 (13.0 KB)
    TX errors 0  dropped 0  overruns 0  carrier 0  collisions 0

ubuntu@techtools:~$
```

### b. Ubuntu Desktop

A screenshot of a terminal window titled "Ubuntu Desktop [Running] - Oracle VM VirtualBox". The terminal shows the user running the 'ifconfig' command from the desktop directory. The output shows details for the 'enp0s3' (ethernet) and 'lo' (loopback) interfaces. The 'enp0s3' interface has an IP of 10.0.2.18 and a netmask of 255.255.255.0. The 'lo' interface has an IP of 127.0.0.1 and a netmask of 255.0.0.0. The terminal also shows the user's current shell prompt and the date/time of the session.

```
Ubuntu Desktop [Running] - Oracle VM VirtualBox
Activities Terminal Feb 1 21:15
ubuntu@ubuntudesktop: ~/Desktop

ubuntu@ubuntudesktop:~/Desktop$ ifconfig
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
    inet 10.0.2.18  netmask 255.255.255.0  broadcast 10.0.2.255
    inet6 fe80::d865:fd38:789f:3f64  prefixlen 64  scopeid 0x20<link>
    ether 08:00:27:11:74:d3  txqueuelen 1000  (Ethernet)
    RX packets 40332  bytes 55211160 (55.2 MB)
    RX errors 0  dropped 0  overruns 0  frame 0
    TX packets 20755  bytes 1271009 (1.2 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 317  bytes 26334 (26.3 KB)
    RX errors 0  dropped 0  overruns 0  frame 0
    TX packets 317  bytes 26334 (26.3 KB)
    TX errors 0  dropped 0  overruns 0  carrier 0  collisions 0

ubuntu@ubuntudesktop:~/Desktop$
```

2. Screenshot of each host pinging each other

a. Ubuntu server

```
ubuntu@techtools:~$ ping -c 4 10.0.2.18
PING 10.0.2.18 (10.0.2.18) 56(84) bytes of data.
64 bytes from 10.0.2.18: icmp_seq=1 ttl=64 time=3.07 ms
64 bytes from 10.0.2.18: icmp_seq=2 ttl=64 time=1.00 ms
64 bytes from 10.0.2.18: icmp_seq=3 ttl=64 time=11.7 ms
64 bytes from 10.0.2.18: icmp_seq=4 ttl=64 time=6.73 ms

--- 10.0.2.18 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3006ms
rtt min/avg/max/mdev = 1.003/5.611/11.653/4.045 ms
ubuntu@techtools:~$
```

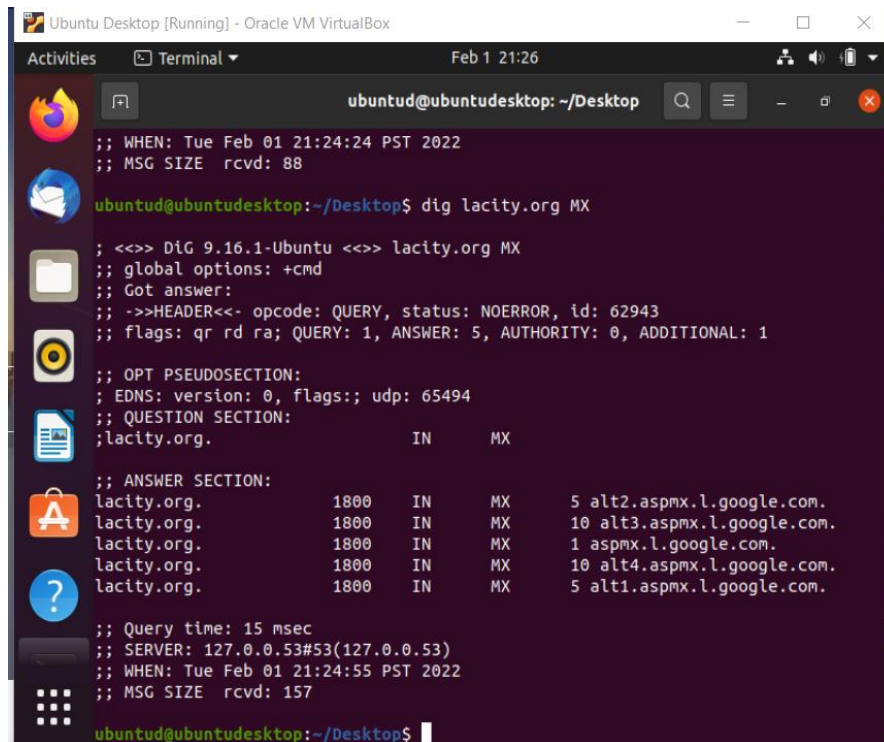
b. Ubuntu desktop

```
ubuntud@ubuntudesktop:~/Desktop$ ping -c 4 10.0.2.17
PING 10.0.2.17 (10.0.2.17) 56(84) bytes of data.
64 bytes from 10.0.2.17: icmp_seq=1 ttl=64 time=0.878 ms
64 bytes from 10.0.2.17: icmp_seq=2 ttl=64 time=21.2 ms
64 bytes from 10.0.2.17: icmp_seq=3 ttl=64 time=1.38 ms
64 bytes from 10.0.2.17: icmp_seq=4 ttl=64 time=1.49 ms

--- 10.0.2.17 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3019ms
rtt min/avg/max/mdev = 0.878/6.237/21.205/8.644 ms
ubuntud@ubuntudesktop:~/Desktop$ S
```

3. DIG command

a. MX record



```
ubuntu@ubuntu:~$ dig lacity.org MX

;; WHEN: Tue Feb 01 21:24:24 PST 2022
;; MSG SIZE rcvd: 88

ubuntu@ubuntu:~$ dig lacity.org MX

;<<>> DiG 9.16.1-Ubuntu <<>> lacity.org MX
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 62943
;; flags: qr rd ra; QUERY: 1, ANSWER: 5, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 65494
;; QUESTION SECTION:
;lacity.org.                IN      MX

;; ANSWER SECTION:
lacity.org.                1800    IN      MX      5 alt2.aspmx.l.google.com.
lacity.org.                1800    IN      MX      10 alt3.aspmx.l.google.com.
lacity.org.                1800    IN      MX      1 aspmx.l.google.com.
lacity.org.                1800    IN      MX      10 alt4.aspmx.l.google.com.
lacity.org.                1800    IN      MX      5 alt1.aspmx.l.google.com.

;; Query time: 15 msec
;; SERVER: 127.0.0.53#53(127.0.0.53)
;; WHEN: Tue Feb 01 21:24:55 PST 2022
;; MSG SIZE rcvd: 157

ubuntu@ubuntu:~$
```

b. Reverse DNS

```
ubuntud@ubuntudesktop:~/Desktop$ dig -x 23.66.114.27
; <<>> DiG 9.16.1-Ubuntu <<>> -x 23.66.114.27
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 17703
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1
;; OPT PSEUDOSECTION:
;; EDNS: version: 0, flags:; udp: 65494
;; QUESTION SECTION:
;27.114.66.23.in-addr.arpa.      IN      PTR
;; ANSWER SECTION:
27.114.66.23.in-addr.arpa. 43200 IN      PTR      a23-66-114-27.deploy.static.akamaitechnologies.com.
;; Query time: 267 msec
;; SERVER: 127.0.0.53#53(127.0.0.53)
;; WHEN: Tue Feb 01 21:30:35 PST 2022
;; MSG SIZE rcvd: 118

ubuntud@ubuntudesktop:~/Desktop$

ubuntud@ubuntudesktop:~/Desktop$ dig -x 23.66.114.33
; <<>> DiG 9.16.1-Ubuntu <<>> -x 23.66.114.33
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 47929
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1
;; OPT PSEUDOSECTION:
;; EDNS: version: 0, flags:; udp: 65494
;; QUESTION SECTION:
;33.114.66.23.in-addr.arpa.      IN      PTR
;; ANSWER SECTION:
33.114.66.23.in-addr.arpa. 43200 IN      PTR      a23-66-114-33.deploy.static.akamaitechnologies.com.
;; Query time: 71 msec
;; SERVER: 127.0.0.53#53(127.0.0.53)
;; WHEN: Tue Feb 01 21:31:20 PST 2022
;; MSG SIZE rcvd: 118
Show Applications
ubuntud@ubuntudesktop:~/Desktop$
```