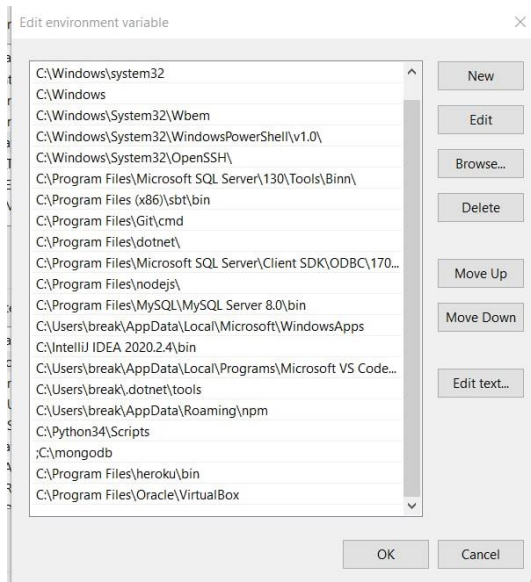
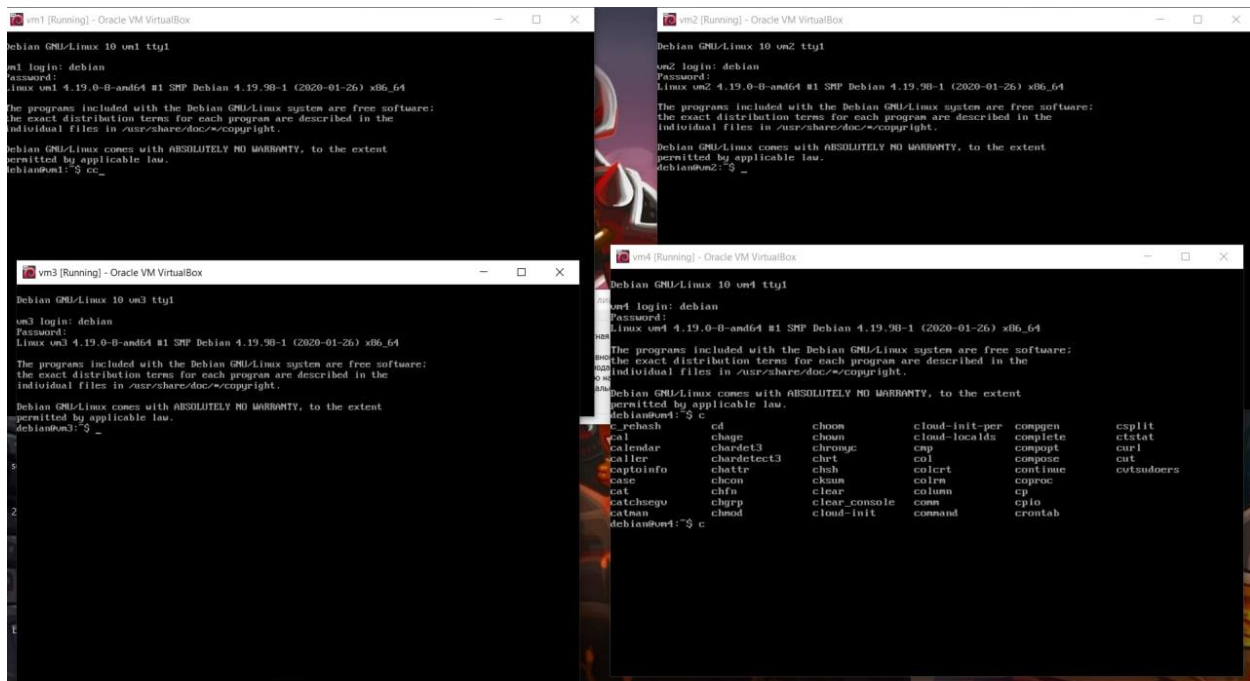


2.1 Lab environment configuration

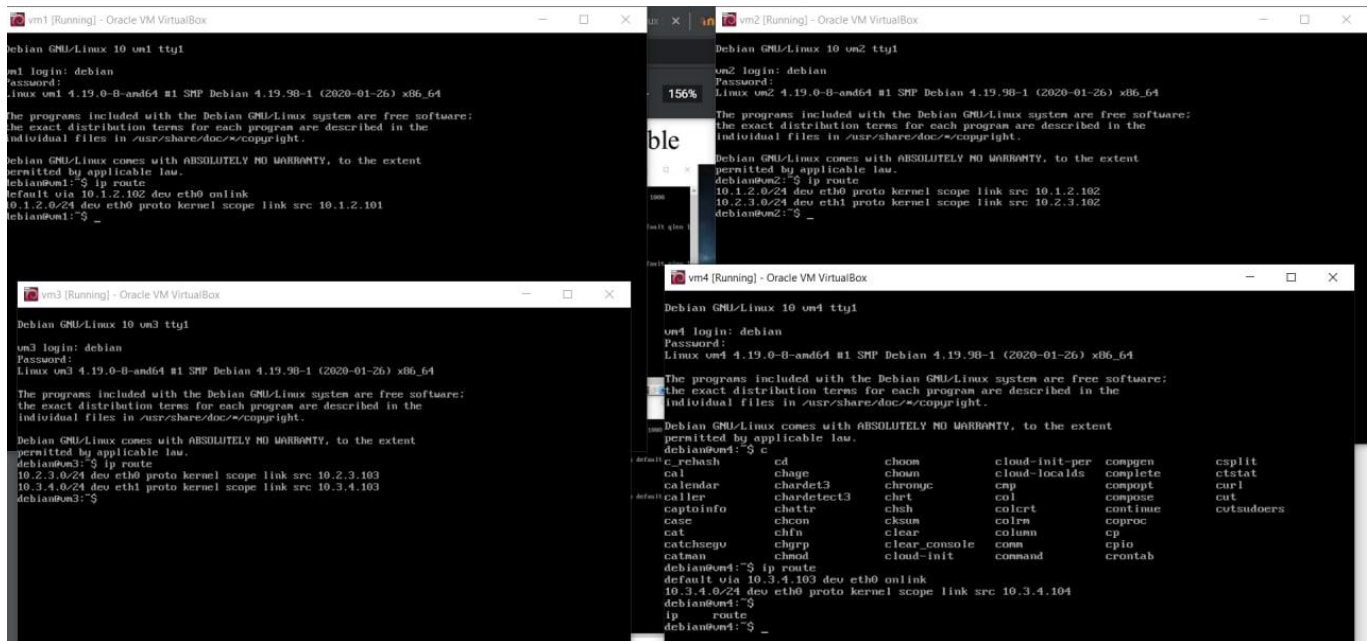


2.2 Starting lab



2.3 Getting used with lab configuration

1.



The screenshot displays four Oracle VM VirtualBox windows, each running a Debian GNU/Linux 10 VM. The windows are titled 'vm1 [Running] - Oracle VM VirtualBox', 'vm2 [Running] - Oracle VM VirtualBox', 'vm3 [Running] - Oracle VM VirtualBox', and 'vm4 [Running] - Oracle VM VirtualBox'. Each window shows the login process (login: debian, Password:), the system version (Linux 4.19.0-0-amd64 #1 SMP Debian 4.19.90-1 (2020-01-26) x86_64), and the Debian GNU/Linux license text. The windows also show the output of the 'ip route' command, which displays the default route and the kernel scope link for the eth0 interface. The output for vm1 and vm2 is identical, showing a default route via 10.1.2.102 and a kernel scope link src 10.1.2.101. The output for vm3 and vm4 is identical, showing a default route via 10.3.4.103 and a kernel scope link src 10.3.4.104. The windows are arranged in a 2x2 grid, with vm1 and vm2 on the top row and vm3 and vm4 on the bottom row.

```
Debian GNU/Linux 10 vm1 tty1
vm1 login: debian
Password:
Linux vm1 4.19.0-0-amd64 #1 SMP Debian 4.19.90-1 (2020-01-26) x86_64

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
debianvm1:~$ ip route
default via 10.1.2.102 dev eth0 onlink
0.1.2.0/24 dev eth0 proto kernel scope link src 10.1.2.101
debianvm1:~$
```

```
Debian GNU/Linux 10 vm2 tty1
vm2 login: debian
Password:
Linux vm2 4.19.0-0-amd64 #1 SMP Debian 4.19.90-1 (2020-01-26) x86_64

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
debianvm2:~$ ip route
10.1.2.0/24 dev eth0 proto kernel scope link src 10.1.2.102
10.2.3.0/24 dev eth1 proto kernel scope link src 10.2.3.102
debianvm2:~$
```

```
Debian GNU/Linux 10 vm3 tty1
vm3 login: debian
Password:
Linux vm3 4.19.0-0-amd64 #1 SMP Debian 4.19.90-1 (2020-01-26) x86_64

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

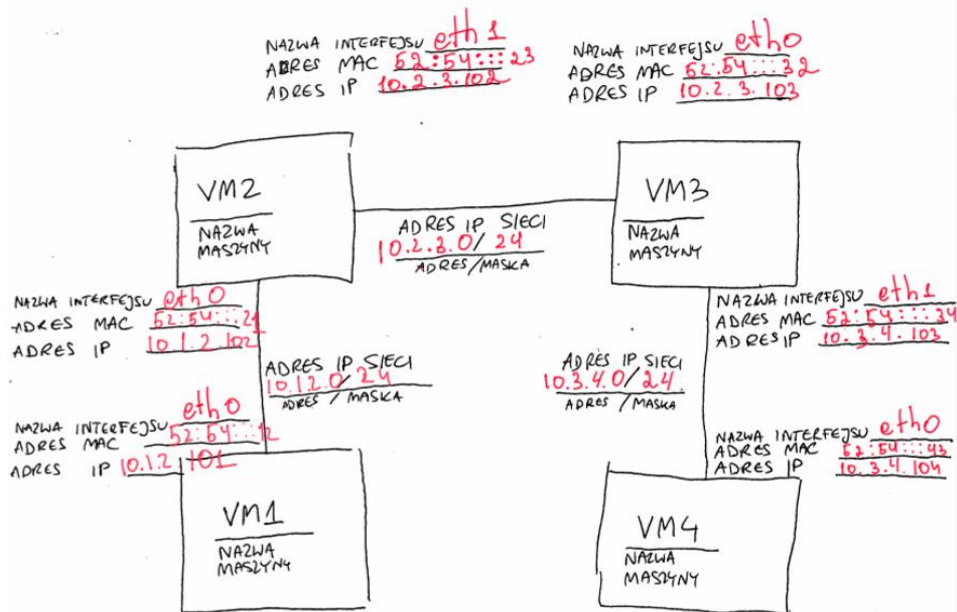
Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
debianvm3:~$ ip route
10.2.3.0/24 dev eth0 proto kernel scope link src 10.2.3.103
10.3.4.0/24 dev eth1 proto kernel scope link src 10.3.4.103
debianvm3:~$
```

```
Debian GNU/Linux 10 vm4 tty1
vm4 login: debian
Password:
Linux vm4 4.19.0-0-amd64 #1 SMP Debian 4.19.90-1 (2020-01-26) x86_64

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
debianvm4:~$ c
c_rehash      cd          chown       cloud-init-per  compgen      csplit
cal           chage       chown       cloud-localds  complete     ctstat
calendar      chardet3    chronyc     cnp            compopt      curl
caller        chardet3    chrt        col            compose      cut
captaininfo   chatr       cksum       colrt          continue     cut
case          chcon       cman       coln           coproc       outsiders
cat           chfn       clear       column         cp
catchsegv     chgrp      clear_console  comm          cpio
catman        chmod      cloud-init  command        crontab
debianvm4:~$ ip route
default via 10.3.4.103 dev eth0 onlink
10.3.4.0/24 dev eth0 proto kernel scope link src 10.3.4.104
ip
route
debianvm4:~$
```

2.



3.

```
10.1.2.0/24 dev eth0 proto kernel scope link src 10.1.2.102
debian@vm2:~$ ip route
10.1.2.0/24 dev eth0 proto kernel scope link src 10.1.2.102
10.2.3.0/24 dev eth1 proto kernel scope link src 10.2.3.102
debian@vm2:~$
```

```

debian@vm2:~$ ping 10.1.2.101
PING 10.1.2.101 (10.1.2.101) 56(84) bytes of data.
64 bytes from 10.1.2.101: icmp_seq=1 ttl=64 time=0.364 ms
64 bytes from 10.1.2.101: icmp_seq=2 ttl=64 time=0.415 ms
64 bytes from 10.1.2.101: icmp_seq=3 ttl=64 time=0.316 ms
64 bytes from 10.1.2.101: icmp_seq=4 ttl=64 time=0.240 ms
^C
--- 10.1.2.101 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 66ms
rtt min/avg/max/mdev = 0.240/0.333/0.415/0.068 ms
debian@vm2:~$ ping 10.2.3.103
PING 10.2.3.103 (10.2.3.103) 56(84) bytes of data.
64 bytes from 10.2.3.103: icmp_seq=1 ttl=64 time=0.472 ms
64 bytes from 10.2.3.103: icmp_seq=2 ttl=64 time=0.382 ms
64 bytes from 10.2.3.103: icmp_seq=3 ttl=64 time=0.346 ms
64 bytes from 10.2.3.103: icmp_seq=4 ttl=64 time=0.448 ms
^C
--- 10.2.3.103 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 78ms
rtt min/avg/max/mdev = 0.346/0.412/0.472/0.050 ms

```

4.

```

debian@vm2:~$ traceroute 10.1.2.101
traceroute to 10.1.2.101 (10.1.2.101), 30 hops max, 60 byte packets
 1  10.1.2.101 (10.1.2.101)  0.301 ms  0.268 ms  0.361 ms

```

5.

```

debian@vm2:~$ ping 10.1.2.58
PING 10.1.2.58 (10.1.2.58) 56(84) bytes of data.
From 10.1.2.102 icmp_seq=1 Destination Host Unreachable
From 10.1.2.102 icmp_seq=2 Destination Host Unreachable
From 10.1.2.102 icmp_seq=3 Destination Host Unreachable
^C
--- 10.1.2.58 ping statistics ---
5 packets transmitted, 0 received, +3 errors, 100% packet loss, time 98ms
pipe 4

```

6.

```

debian@vm2:~$ traceroute 10.1.2.58
traceroute to 10.1.2.58 (10.1.2.58), 30 hops max, 60 byte packets
 1  10.1.2.102 (10.1.2.102)  3067.129 ms !H 3067.031 ms !H 3067.018 ms !H
debian@vm2:~$ _

```

7.

```

debian@vm2:~$ ping 2.2.2.2
connect: Network is unreachable

```

```

debian@vm2:~$ traceroute 2.2.2.2
traceroute to 2.2.2.2 (2.2.2.2), 30 hops max, 60 byte packets
connect: Network is unreachable

```

8.

```
debian@vm1:~$ ip route
default via 10.1.2.102 dev eth0 onlink
10.1.2.0/24 dev eth0 proto kernel scope link src 10.1.2.101
```

```
debian@vm1:~$ ping 10.1.2.102
PING 10.1.2.102 (10.1.2.102) 56(84) bytes of data.
64 bytes from 10.1.2.102: icmp_seq=1 ttl=64 time=0.320 ms
64 bytes from 10.1.2.102: icmp_seq=2 ttl=64 time=0.423 ms
64 bytes from 10.1.2.102: icmp_seq=3 ttl=64 time=0.456 ms
64 bytes from 10.1.2.102: icmp_seq=4 ttl=64 time=0.322 ms
^C
--- 10.1.2.102 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 65ms
rtt min/avg/max/mdev = 0.320/0.380/0.456/0.061 ms
debian@vm1:~$ traceroute 10.1.2.102
traceroute to 10.1.2.102 (10.1.2.102), 30 hops max, 60 byte packets
 1  10.1.2.102 (10.1.2.102)  0.372 ms  0.341 ms  0.326 ms
debian@vm1:~$ _
```

9.

10.

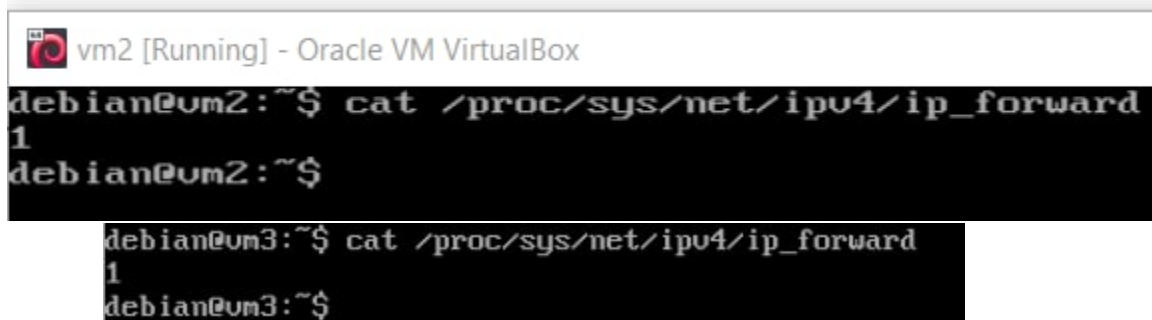
```
debian@vm1:~$ ping 10.1.2.58
PING 10.1.2.58 (10.1.2.58) 56(84) bytes of data.
From 10.1.2.101 icmp_seq=1 Destination Host Unreachable
From 10.1.2.101 icmp_seq=2 Destination Host Unreachable
From 10.1.2.101 icmp_seq=3 Destination Host Unreachable
From 10.1.2.101 icmp_seq=4 Destination Host Unreachable
From 10.1.2.101 icmp_seq=5 Destination Host Unreachable
From 10.1.2.101 icmp_seq=6 Destination Host Unreachable
^C
--- 10.1.2.58 ping statistics ---
7 packets transmitted, 0 received, +6 errors, 100% packet loss, time 148ms
pipe 4
debian@vm1:~$ traceroute 10.1.2.58
traceroute to 10.1.2.58 (10.1.2.58), 30 hops max, 60 byte packets
 1  vm1 (10.1.2.101)  3057.371 ms  !H  3057.316 ms  !H  3057.302 ms  !H
debian@vm1:~$ _
```

11.

```
debian@vm1:~$ ping 8.8.8.8
PING 8.8.8.8 (8.8.8.8) 56(84) bytes of data.
From 10.1.2.102 icmp_seq=1 Destination Net Unreachable
From 10.1.2.102 icmp_seq=2 Destination Net Unreachable
From 10.1.2.102 icmp_seq=3 Destination Net Unreachable
^C
--- 8.8.8.8 ping statistics ---
3 packets transmitted, 0 received, +3 errors, 100% packet loss, time 4
debian@vm1:~$ traceroute 8.8.8.8
traceroute to 8.8.8.8 (8.8.8.8), 30 hops max, 60 byte packets
 1  10.1.2.102 (10.1.2.102)  0.283 ms  !N  0.240 ms  !N *
```


2.4 Routing configuration

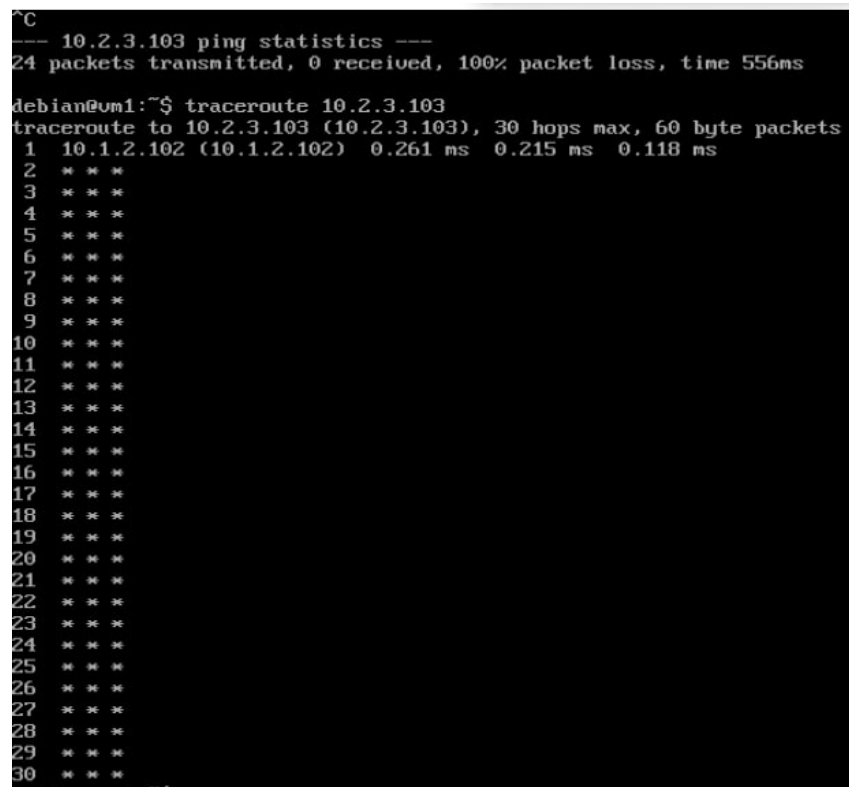
1.



```
vm2 [Running] - Oracle VM VirtualBox
debian@vm2:~$ cat /proc/sys/net/ipv4/ip_forward
1
debian@vm2:~$

debian@vm3:~$ cat /proc/sys/net/ipv4/ip_forward
1
debian@vm3:~$
```

2.



```
^C
--- 10.2.3.103 ping statistics ---
24 packets transmitted, 0 received, 100% packet loss, time 556ms

debian@vm1:~$ traceroute 10.2.3.103
traceroute to 10.2.3.103 (10.2.3.103), 30 hops max, 60 byte packets
 1  10.1.2.102 (10.1.2.102)  0.261 ms  0.215 ms  0.118 ms
 2  * * *
 3  * * *
 4  * * *
 5  * * *
 6  * * *
 7  * * *
 8  * * *
 9  * * *
10  * * *
11  * * *
12  * * *
13  * * *
14  * * *
15  * * *
16  * * *
17  * * *
18  * * *
19  * * *
20  * * *
21  * * *
22  * * *
23  * * *
24  * * *
25  * * *
26  * * *
27  * * *
28  * * *
29  * * *
30  * * *
```

VM 1 and VM 3 configuration

```
debian@vm3:~$ sudo -i
root@vm3:~# ip route add 10.1.2/24 via 10.2.3.102
root@vm3:~# ip route
10.1.2.0/24 via 10.2.3.102 dev eth0
10.2.3.0/24 dev eth0 proto kernel scope link src 10.2.3.103
10.3.4.0/24 dev eth1 proto kernel scope link src 10.3.4.103
root@vm3:~# ping 10.1.2.101
PING 10.1.2.101 (10.1.2.101) 56(84) bytes of data.
64 bytes from 10.1.2.101: icmp_seq=1 ttl=63 time=0.740 ms
64 bytes from 10.1.2.101: icmp_seq=2 ttl=63 time=0.578 ms
64 bytes from 10.1.2.101: icmp_seq=3 ttl=63 time=0.777 ms
64 bytes from 10.1.2.101: icmp_seq=4 ttl=63 time=0.478 ms
^C
--- 10.1.2.101 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 6ms
rtt min/avg/max/mdev = 0.478/0.643/0.777/0.122 ms
root@vm3:~# traceroute 10.1.2.101
traceroute to 10.1.2.101 (10.1.2.101), 30 hops max, 60 byte packets
 1  10.2.3.102 (10.2.3.102)  0.322 ms  0.293 ms  0.278 ms
 2  10.1.2.101 (10.1.2.101)  0.927 ms  0.925 ms  0.916 ms
```

```
debian@vm1:~$ sudo -i
root@vm1:~# ping 10.2.3.103
PING 10.2.3.103 (10.2.3.103) 56(84) bytes of data.
64 bytes from 10.2.3.103: icmp_seq=1 ttl=63 time=0.682 ms
64 bytes from 10.2.3.103: icmp_seq=2 ttl=63 time=0.523 ms
64 bytes from 10.2.3.103: icmp_seq=3 ttl=63 time=0.514 ms
^C
--- 10.2.3.103 ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 38ms
rtt min/avg/max/mdev = 0.514/0.573/0.682/0.077 ms
root@vm1:~# traceroute 10.2.3.103
traceroute to 10.2.3.103 (10.2.3.103), 30 hops max, 60 byte packets
 1  10.1.2.102 (10.1.2.102)  0.330 ms  0.145 ms  0.183 ms
 2  10.2.3.103 (10.2.3.103)  0.428 ms  0.411 ms  0.379 ms
root@vm1:~# _
```

VM2 and VM4 configuration


```

debian@vm2:~$ sudo -i
root@vm2:~# ip route add 10.3.4/24 via 10.2.3.103
root@vm2:~# ip route
10.1.2.0/24 dev eth0 proto kernel scope link src 10.1.2.102
10.2.3.0/24 dev eth1 proto kernel scope link src 10.2.3.102
10.3.4.0/24 via 10.2.3.103 dev eth1
root@vm2:~# ping 10.3.4.104
PING 10.3.4.104 (10.3.4.104) 56(84) bytes of data.
64 bytes from 10.3.4.104: icmp_seq=1 ttl=63 time=0.869 ms
64 bytes from 10.3.4.104: icmp_seq=2 ttl=63 time=0.462 ms
64 bytes from 10.3.4.104: icmp_seq=3 ttl=63 time=0.530 ms
^C
--- 10.3.4.104 ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 52ms
rtt min/avg/max/mdev = 0.462/0.620/0.869/0.179 ms
root@vm2:~# traceroute 10.3.4.104
traceroute to 10.3.4.104 (10.3.4.104), 30 hops max, 60 byte packets
 1  10.2.3.103 (10.2.3.103)  0.301 ms  0.253 ms  0.230 ms
 2  10.3.4.104 (10.3.4.104)  0.437 ms  0.313 ms  0.418 ms

debian@vm4:~$ ping 10.1.2.102
PING 10.1.2.102 (10.1.2.102) 56(84) bytes of data.
64 bytes from 10.1.2.102: icmp_seq=1 ttl=63 time=0.507 ms
64 bytes from 10.1.2.102: icmp_seq=2 ttl=63 time=0.536 ms
64 bytes from 10.1.2.102: icmp_seq=3 ttl=63 time=0.901 ms
^C
--- 10.1.2.102 ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 42ms
rtt min/avg/max/mdev = 0.507/0.648/0.901/0.179 ms
debian@vm4:~$ traceroute 10.1.2.102
traceroute to 10.1.2.102 (10.1.2.102), 30 hops max, 60 byte packets
 1  10.3.4.103 (10.3.4.103)  0.304 ms  0.256 ms  0.105 ms
 2  10.1.2.102 (10.1.2.102)  0.587 ms  0.491 ms  0.393 ms

```

VM1 to VM4

```

root@vm1:~# ping 10.3.4.104
PING 10.3.4.104 (10.3.4.104) 56(84) bytes of data.
64 bytes from 10.3.4.104: icmp_seq=1 ttl=62 time=0.802 ms
64 bytes from 10.3.4.104: icmp_seq=2 ttl=62 time=1.03 ms
64 bytes from 10.3.4.104: icmp_seq=3 ttl=62 time=1.09 ms
^C
--- 10.3.4.104 ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 9ms
rtt min/avg/max/mdev = 0.802/0.974/1.093/0.124 ms
root@vm1:~# traceroute 10.3.4.104
traceroute to 10.3.4.104 (10.3.4.104), 30 hops max, 60 byte packets
 1  10.1.2.102 (10.1.2.102)  0.282 ms  0.235 ms  0.149 ms
 2  10.2.3.103 (10.2.3.103)  0.474 ms  0.439 ms  0.544 ms
 3  10.3.4.104 (10.3.4.104)  2.621 ms  2.398 ms  2.258 ms

```



vm4 [Running] - Oracle VM VirtualBox

```
debian@vm4:~$ traceroute 10.1.2.101
traceroute to 10.1.2.101 (10.1.2.101), 30 hops max, 60 byte packets
 1  10.3.4.103 (10.3.4.103)  0.294 ms  0.248 ms  0.147 ms
 2  10.2.3.102 (10.2.3.102)  0.403 ms  0.438 ms  0.358 ms
 3  10.1.2.101 (10.1.2.101)  1.035 ms  1.055 ms  0.901 ms
debian@vm4:~$ ping 10.1.2.101
PING 10.1.2.101 (10.1.2.101) 56(84) bytes of data.
64 bytes from 10.1.2.101: icmp_seq=1 ttl=62 time=0.801 ms
64 bytes from 10.1.2.101: icmp_seq=2 ttl=62 time=0.729 ms
64 bytes from 10.1.2.101: icmp_seq=3 ttl=62 time=0.833 ms
64 bytes from 10.1.2.101: icmp_seq=4 ttl=62 time=0.710 ms
64 bytes from 10.1.2.101: icmp_seq=5 ttl=62 time=0.988 ms
64 bytes from 10.1.2.101: icmp_seq=6 ttl=62 time=0.886 ms
```

2.5 Configuration of network interfaces

1.

```
vm1 [Running] - Oracle VM VirtualBox
GNU nano 3.2 /etc/network/interfaces.d/40-network-cfg

# Network configuration
auto lo
iface lo inet loopback

auto eth0
iface eth0 inet static
    address 10.1.2.105/24
    gateway 10.1.2.102
```

Testing

```
vm1 [Running] - Oracle VM VirtualBox
root@uml:~# ifup eth0
[ 5186.884078] e1000: eth0 NIC Link is Up 1000 Mbps Full Duplex, Flow Control: RX
root@uml:~# ip ad
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 1000
    link/ether 52:54:00:00:00:12 brd ff:ff:ff:ff:ff:ff
    inet 10.1.2.105/24 brd 10.1.2.255 scope global eth0
        valid_lft forever preferred_lft forever
root@uml:~# ping 10.1.2.102
PING 10.1.2.102 (10.1.2.102) 56(84) bytes of data:
64 bytes from 10.1.2.102: icmp_seq=1 ttl=64 time=0.728 ms
64 bytes from 10.1.2.102: icmp_seq=2 ttl=64 time=0.274 ms
^C
--- 10.1.2.102 ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 2ms
rtt min/avg/max/mdev = 0.274/0.501/0.728/0.227 ms
root@uml:~# ping 10.2.3.103
PING 10.2.3.103 (10.2.3.103) 56(84) bytes of data:
64 bytes from 10.2.3.103: icmp_seq=1 ttl=63 time=0.627 ms
64 bytes from 10.2.3.103: icmp_seq=2 ttl=63 time=0.665 ms
^C
--- 10.2.3.103 ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 2ms
rtt min/avg/max/mdev = 0.627/0.646/0.665/0.019 ms
root@uml:~# ping 10.3.4.104
PING 10.3.4.104 (10.3.4.104) 56(84) bytes of data:
64 bytes from 10.3.4.104: icmp_seq=1 ttl=62 time=1.05 ms
64 bytes from 10.3.4.104: icmp_seq=2 ttl=62 time=0.720 ms
^C
--- 10.3.4.104 ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 2ms
rtt min/avg/max/mdev = 0.720/0.883/1.046/0.163 ms
root@uml:~#
```

Vm4 ping to 10.1.2.105

```
debian@vm4:~$ ping 10.1.2.105
PING 10.1.2.105 (10.1.2.105) 56(84) bytes of data:
64 bytes from 10.1.2.105: icmp_seq=1 ttl=62 time=0.763 ms
64 bytes from 10.1.2.105: icmp_seq=2 ttl=62 time=0.970 ms
64 bytes from 10.1.2.105: icmp_seq=3 ttl=62 time=1.11 ms
^C
--- 10.1.2.105 ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 10ms
rtt min/avg/max/mdev = 0.763/0.948/1.112/0.145 ms
```

VM2 configuration

```
vm2 [Running] - Oracle VM VirtualBox
GNU nano 3.2 /etc/network/interfaces.d/40-network

# Network configuration
auto lo
iface lo inet loopback

auto eth0
iface eth0 inet static
    address 10.1.2.102/24

auto eth1
iface eth1 inet static
    address 10.2.3.102/24
up route add -net 10.3.4.104 netmask 255.255.255.0 gw 10.2.3.103
down route del -net 10.3.4.104 netmask 255.255.255.0 gw 10.2.3.103

root@vm2:~# ping 10.3.4.104
PING 10.3.4.104 (10.3.4.104) 56(84) bytes of data.
64 bytes from 10.3.4.104: icmp_seq=1 ttl=63 time=2.77 ms
64 bytes from 10.3.4.104: icmp_seq=2 ttl=63 time=2.54 ms
64 bytes from 10.3.4.104: icmp_seq=3 ttl=63 time=0.957 ms
^C
--- 10.3.4.104 ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 5ms
rtt min/avg/max/mdev = 0.957/2.087/2.765/0.804 ms

root@vm1:~# ping 10.3.4.104
PING 10.3.4.104 (10.3.4.104) 56(84) bytes of data.
From 10.1.2.102 icmp_seq=1 Destination Net Unreachable
From 10.1.2.102 icmp_seq=2 Destination Net Unreachable
From 10.1.2.102 icmp_seq=3 Destination Net Unreachable
^C
--- 10.3.4.104 ping statistics ---
4 packets transmitted, 0 received, +3 errors, 100% packet loss, time 20ms

root@vm1:~# traceroute 10.3.4.104
traceroute to 10.3.4.104 (10.3.4.104), 30 hops max, 60 byte packets
 1  10.1.2.102 (10.1.2.102) 0.522 ms !N 0.484 ms !N *
```

Reboot:

Debian GNU/Linux 10 vm2 tty1

vm2 login: debian

Password:

Last login: Thu May 6 10:51:51 CEST 2021 on tty1

Linux vm2 4.19.0-8-amd64 #1 SMP Debian 4.19.98-1 (2020-01-26) x86_64

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.

debian@vm2:~\$ sudo -i

root@vm2:~# ping 10.3.4.104

connect: Network is unreachable