

1. On VM1

```
root@1c3b841cd39b:/home/hw1# ./main --interface eth0 -c 4 --filter icmp
Name: eth0
Name: any
Name: lo
Name: tunl0
Name: ip6tnl0
Name: bluetooth-monitor
Name: nflog
Name: nfqueue
Name: dbus-system
Name: dbus-session
Transport type: ICMP
Source IP: 172.19.0.3
Destination IP: 172.19.0.2
ICMP type value: 8
Transport type: ICMP
Source IP: 172.19.0.2
Destination IP: 172.19.0.3
ICMP type value: 0
Transport type: ICMP
Source IP: 172.19.0.3
Destination IP: 172.19.0.2
ICMP type value: 8
Transport type: ICMP
Source IP: 172.19.0.2
Destination IP: 172.19.0.3
ICMP type value: 0
```

On VM2

```
shflte@ae13eedbe5c5:/home$ ping 172.19.0.2 -c 3
PING 172.19.0.2 (172.19.0.2) 56(84) bytes of data.
64 bytes from 172.19.0.2: icmp_seq=1 ttl=64 time=0.114 ms
64 bytes from 172.19.0.2: icmp_seq=2 ttl=64 time=0.086 ms
64 bytes from 172.19.0.2: icmp_seq=3 ttl=64 time=0.094 ms

--- 172.19.0.2 ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2059ms
rtt min/avg/max/mdev = 0.086/0.098/0.114/0.011 ms
```

2. VM1 聽封包：（圖為 ICMP 及 UDP）

```
root@1c3b841cd39b:/home/hw1# ./main --count 20 -f all -i eth0
Name: eth0
Name: any
Name: lo
Name: tunl0
Name: ip6tnl0
Name: bluetooth-monitor
Name: nflog
Name: nfqueue
Name: dbus-system
Name: dbus-session

Transport type: ICMP
Source IP: 172.19.0.2
Destination IP: 172.19.0.3
ICMP type value: 8

Transport type: ICMP
Source IP: 172.19.0.3
Destination IP: 172.19.0.2
ICMP type value: 0

Transport type: UDP
Source IP: 172.19.0.2
Destination IP: 172.19.0.3
Source port: 35323
Destination port: 6666
Payload: 35 35 35 35 35 35 35 35 35 35 35 35 35 35 35 35

Transport type: UDP
Source IP: 172.19.0.2
Destination IP: 172.19.0.3
Source port: 35323
Destination port: 6666
Payload: 37 37 37 37 37 37 37 37 37 37 37 37 37 37 37 37

Transport type: UDP
Source IP: 172.19.0.2
Destination IP: 172.19.0.3
Source port: 35323
Destination port: 6666
Payload: 38 38 38 38 38 38 38 38 38 38 38 38 38 38 38 38
```

(圖為 TCP 封包)

```
Transport type: TCP
Source IP: 172.19.0.2
Destination IP: 172.19.0.3
Source port: 47798
Destination port: 6667
Payload:

Transport type: TCP
Source IP: 172.19.0.3
Destination IP: 172.19.0.2
Source port: 6667
Destination port: 47798
Payload:

Transport type: TCP
Source IP: 172.19.0.2
Destination IP: 172.19.0.3
Source port: 47798
Destination port: 6667
Payload:

Transport type: TCP
Source IP: 172.19.0.2
Destination IP: 172.19.0.3
Source port: 47798
Destination port: 6667
Payload: 61 61 61 61 61 61 61 61 61 61 61 61 61 61 61 61

Transport type: TCP
Source IP: 172.19.0.3
Destination IP: 172.19.0.2
Source port: 6667
Destination port: 47798
Payload:

Transport type: TCP
Source IP: 172.19.0.2
Destination IP: 172.19.0.3
Source port: 47798
Destination port: 6667
Payload: 39 39 39 39 39 39 39 39 39 39 39 39 39 39 39 39

Transport type: TCP
Source IP: 172.19.0.3
Destination IP: 172.19.0.2
Source port: 6667
Destination port: 47798
Payload:
```

Transport type: TCP
Source IP: 172.19.0.2
Destination IP: 172.19.0.3
Source port: 47798
Destination port: 6667
Payload: 38 38 38 38 38 38 38 38 38 38 38 38 38 38 38 38

Transport type: TCP
Source IP: 172.19.0.2
Destination IP: 172.19.0.3
Source port: 47798
Destination port: 6667
Payload: 6c 6c 6c 6c 6c 6c 6c 6c 6c 6c 6c 6c 6c 6c 6c 6d

Transport type: TCP
Source IP: 172.19.0.2
Destination IP: 172.19.0.3
Source port: 47798
Destination port: 6667
Payload: 65 66 66 66 66 66 66 66 66 66 66 66 66 66 66 66

Transport type: TCP
Source IP: 172.19.0.2
Destination IP: 172.19.0.3
Source port: 47798
Destination port: 6667
Payload: 74 74 74 74 74 74 74 74 74 74 74 74 74 74 74 74

Transport type: TCP
Source IP: 172.19.0.3
Destination IP: 172.19.0.2
Source port: 6667
Destination port: 47798
Payload:

Transport type: TCP
Source IP: 172.19.0.3
Destination IP: 172.19.0.2
Source port: 6667
Destination port: 47798
Payload:

Transport type: TCP
Source IP: 172.19.0.3
Destination IP: 172.19.0.2
Source port: 6667
Destination port: 47798
Payload:

