

MiddlePolice Experiments

1. Client: ThinkPad T430 Vmware Virtual Machine Ubuntu
IP:192.168.1.104

Ifconfig eth0 mtu 1300 (IMPORTANT) Make sure send packet the largest length is 1300

```
sudo ethtool -K eth0 tso off
```

```
sudo ethtool -K eth0 gso off
```

```
sudo ethtool -K eth0 gro off
```

```
haojin@ubuntu:~/police/sender$ sudo ethtool -k eth0
```

```
[sudo] password for haojin:
```

```
Features for eth0:
```

```
rx-checksumming: off
```

```
tx-checksumming: on
```

```
    tx-checksum-ipv4: off [fixed]
```

```
    tx-checksum-ip-generic: on
```

```
    tx-checksum-ipv6: off [fixed]
```

```
    tx-checksum-fcoe-crc: off [fixed]
```

```
    tx-checksum-sctp: off [fixed]
```

```
scatter-gather: on
```

```
    tx-scatter-gather: on
```

```
    tx-scatter-gather-fraglist: off [fixed]
```

```
tcp-segmentation-offload: off
```

```
    tx-tcp-segmentation: off
```

```
    tx-tcp-ecn-segmentation: off [fixed]
```

```
    tx-tcp6-segmentation: off [fixed]
```

```
udp-fragmentation-offload: off [fixed]
```

```
generic-segmentation-offload: off
```

```
generic-receive-offload: on
```

```
large-receive-offload: off [fixed]
```

```
rx-vlan-offload: on
```

```
tx-vlan-offload: on [fixed]
```

```
ntuple-filters: off [fixed]
```

```
receive-hashing: off [fixed]
```

```
highdma: off [fixed]
```

```
rx-vlan-filter: on [fixed]
```

```
vlan-challenged: off [fixed]
```

```
tx-lockless: off [fixed]
```

```
netns-local: off [fixed]
```

```
tx-gso-robust: off [fixed]
```

```
tx-fcoe-segmentation: off [fixed]
```

```
tx-gre-segmentation: off [fixed]
```

```
tx-ipip-segmentation: off [fixed]
```

```
tx-sit-segmentation: off [fixed]
```

```
tx-udp_tnl-segmentation: off [fixed]
```

```
tx-mpls-segmentation: off [fixed]
```

```
fcoe-mtu: off [fixed]
```

```
tx-nocache-copy: on
```

```
loopback: off [fixed]
```

```
rx-fcs: off
```

```
rx-all: off
```

```
tx-vlan-stag-hw-insert: off [fixed]
```

```
rx-vlan-stag-hw-parse: off [fixed]
```

```
rx-vlan-stag-filter: off [fixed]
```

```
l2-fwd-offload: off [fixed]
```

Send Traffic: ./Gentraffic50K 192.168.1.174

2. Mbox: IBM System X 3250 M4

Two NIC: eth0: 192.168.1.174 eth1:192.168.2.252

```
sudo ethtool -K eth0 tso off
```

```
sudo ethtool -K eth0 gso off
```

```
sudo ethtool -K eth0 gro off
```

```
sudo ethtool -K eth1 tso off
```

```
sudo ethtool -K eth1 gso off
```

```
sudo ethtool -K eth1 gro off
```

```
haojin@haojin-0A:~/Downloads/police/sender$ sudo ethtool -k eth0
```

[sudo] password for haojin:

Features for eth0:

rx-checksumming: on

tx-checksumming: on

tx-checksum-ipv4: off [fixed]

tx-checksum-ip-generic: on

tx-checksum-ipv6: off [fixed]

tx-checksum-fcoe-crc: off [fixed]

tx-checksum-sctp: off [fixed]

scatter-gather: on

tx-scatter-gather: on

tx-scatter-gather-fraglist: off [fixed]

tcp-segmentation-offload: off

tx-tcp-segmentation: off

tx-tcp-ecn-segmentation: off [fixed]

tx-tcp6-segmentation: off

udp-fragmentation-offload: off [fixed]

generic-segmentation-offload: off

generic-receive-offload: off

large-receive-offload: off [fixed]

rx-vlan-offload: on

tx-vlan-offload: on

ntuple-filters: off [fixed]

receive-hashing: on

highdma: on [fixed]

rx-vlan-filter: on [fixed]

vlan-challenged: off [fixed]

tx-lockless: off [fixed]

netns-local: off [fixed]

tx-gso-robust: off [fixed]

tx-fcoe-segmentation: off [fixed]

tx-gre-segmentation: off [fixed]

tx-ipip-segmentation: off [fixed]

tx-sit-segmentation: off [fixed]

tx-udp_tnl-segmentation: off [fixed]

tx-mpls-segmentation: off [fixed]

fcoe-mtu: off [fixed]

tx-nocache-copy: off

loopback: off [fixed]

rx-fcs: off

rx-all: off

tx-vlan-stag-hw-insert: off [fixed]

rx-vlan-stag-hw-parse: off [fixed]

rx-vlan-stag-filter: off [fixed]

l2-fwd-offload: off [fixed]

busy-poll: off [fixed]

```
haojin@haojin-0A:~/Downloads/police/sender$ sudo ethtool -k eth1
```

Features for eth1:

rx-checksumming: on

```

tx-checksumming: on
    tx-checksum-ipv4: off [fixed]
    tx-checksum-ip-generic: on
    tx-checksum-ipv6: off [fixed]
    tx-checksum-fcoe-crc: off [fixed]
    tx-checksum-sctp: off [fixed]
scatter-gather: on
    tx-scatter-gather: on
    tx-scatter-gather-fraglist: off [fixed]
tcp-segmentation-offload: off
    tx-tcp-segmentation: off
    tx-tcp-ecn-segmentation: off [fixed]
    tx-tcp6-segmentation: off
udp-fragmentation-offload: off [fixed]
generic-segmentation-offload: off
generic-receive-offload: off
large-receive-offload: off [fixed]
rx-vlan-offload: on
tx-vlan-offload: on
ntuple-filters: off [fixed]
receive-hashing: on
highdma: on [fixed]
rx-vlan-filter: on [fixed]
vlan-challenged: off [fixed]
tx-lockless: off [fixed]
netns-local: off [fixed]
tx-gso-robust: off [fixed]
tx-fcoe-segmentation: off [fixed]
tx-gre-segmentation: off [fixed]
tx-ipip-segmentation: off [fixed]
tx-sit-segmentation: off [fixed]
tx-udp_tnl-segmentation: off [fixed]
tx-mpls-segmentation: off [fixed]
fcoe-mtu: off [fixed]
tx-nocache-copy: off
loopback: off [fixed]
rx-fcs: off
rx-all: off
tx-vlan-stag-hw-insert: off [fixed]
rx-vlan-stag-hw-parse: off [fixed]
rx-vlan-stag-filter: off [fixed]
l2-fwd-offload: off [fixed]
busy-poll: off [fixed]

```

```
sudo insmod mbox_offical.ko
```

3. Victim: Dell INSPIRON

IP: 192.168.2.253

```
sudo ethtool -K eth0 tso off
```

```
sudo ethtool -K eth0 gso off
```

```
sudo ethtool -K eth0 gro off
```

```
haojin@haojin-DELL:~$ sudo ethtool -k eth0
```

Features for eth0:

```

rx-checksumming: on
tx-checksumming: off
    tx-checksum-ipv4: off
    tx-checksum-ip-generic: off [fixed]
    tx-checksum-ipv6: off

```

tx-checksum-fcoe-crc: off [fixed]
tx-checksum-sctp: off [fixed]
scatter-gather: off
tx-scatter-gather: off
tx-scatter-gather-fraglist: off [fixed]
tcp-segmentation-offload: off
tx-tcp-segmentation: off
tx-tcp-ecn-segmentation: off [fixed]
tx-tcp6-segmentation: off
udp-fragmentation-offload: off [fixed]
generic-segmentation-offload: off
generic-receive-offload: on
large-receive-offload: off [fixed]
rx-vlan-offload: on
tx-vlan-offload: on
ntuple-filters: off [fixed]
receive-hashing: off [fixed]
highdma: off [fixed]
rx-vlan-filter: off [fixed]
vlan-challenged: off [fixed]
tx-lockless: off [fixed]
netns-local: off [fixed]
tx-gso-robust: off [fixed]
tx-fcoe-segmentation: off [fixed]
tx-gre-segmentation: off [fixed]
tx-ipip-segmentation: off [fixed]
tx-sit-segmentation: off [fixed]
tx-udp_tnl-segmentation: off [fixed]
fcoe-mtu: off [fixed]
tx-nocache-copy: off
loopback: off [fixed]
rx-fcs: off
rx-all: off
tx-vlan-stag-hw-insert: off [fixed]
rx-vlan-stag-hw-parse: off [fixed]
rx-vlan-stag-filter: off [fixed]
l2-fwd-offload: off [fixed]
busy-poll: off [fixed]
hw-switch-offload: off [fixed]

sudo insmod victim_official.ko