

HYPER-V

????????????????????

```
ping -c 2 -i 30 10.10.10.10
```

...

```
ping: sendmsg: Operation not permitted
```

...

```
cat /etc/sysctl.conf | grep icmp
```

```
### 1. 1
```

```
1. **iptables**
```

```
* KVM VMware Hyper-V vSwitch ICMP
* port security storm control
```

```
2. **iptables/etables/SELinux/AppArmor 1 **
```

```
* iptables Fail2Ban DDOS DROP
ping -c 1 -i 30 10.10.10.10
* `sendmsg: Operation not permitted`
```

```
3. **/etc/sysctl.conf **
```

```
* virtio e1000
* ring buffer
```

```
4. **ARP/1 **
```

```
* Linux `neigh table`
* `ip -s neigh` `dmesg` "neighbour table overflow"
```

```
5. ** (socket buffer/netfilter conntrack)**
```

```
* `net.ipv4.ip_local_port_range` `conntrack` `net.core.somaxconn`
`netdev_max_backlog` ICMP
```



```
    `dropped`, `errors`, `busy`
* /
```

```
Linux
**Hyper-V hv_netvsc
**
/ SR-IOV
```

```
ethtool -S eth0 dmesg
**hv_netvsc driver bottleneck**
```

```
root@rulr-4:/var/log/sysstat# ethtool -S eth0
```

NIC statistics:

```
tx_scattered: 0
tx_no_memory: 0
tx_no_space: 0
tx_too_big: 0
tx_busy: 0
tx_send_full: 1015
rx_comp_busy: 0
stop_queue: 0
wake_queue: 0
vf_rx_packets: 0
vf_rx_bytes: 0
vf_tx_packets: 0
vf_tx_bytes: 0
vf_tx_dropped: 0
tx_queue_0_packets: 8786385
tx_queue_0_bytes: 681809072
rx_queue_0_packets: 10353578
rx_queue_0_bytes: 783861988
tx_queue_1_packets: 10558838
tx_queue_1_bytes: 833217559
rx_queue_1_packets: 10700441
rx_queue_1_bytes: 807056969
tx_queue_2_packets: 9822662
tx_queue_2_bytes: 757879972
rx_queue_2_packets: 11035513
rx_queue_2_bytes: 835997833
tx_queue_3_packets: 7852471
tx_queue_3_bytes: 619014441
```

```
**`ethtool -S eth0`**
```


