

# Network Impairments tool

## Knowledge information

This tool was created from the following guide:

<http://www.instructables.com/id/Simple-linux-commands-from-a-web-page/step4/The-main-program/>

The commands that are required to be used were added to the sudoer file: (this is for internal use, never do that for an external server - that is a security bridge)

<http://askubuntu.com/questions/159007/how-do-i-run-specific-sudo-commands-without-a-password>

The user that should be granted authorization is

www-data

## Added Commands:

### Traffic control basic guide:

<http://www.linuxfoundation.org/collaborate/workgroups/networking/netem>

### Bandwidth limitation:

<http://mark.koli.ch/slowdown-throttle-bandwidth-linux-network-interface>

#download:

```
sudo tc qdisc add dev eth1 handle 1: root htb default 11
sudo tc class add dev eth1 parent 1: classid 1:1 htb rate "$DLWONDERSHAPER"kbps
sudo tc class add dev eth1 parent 1:1 classid 1:11 htb rate "$DLWONDERSHAPER"kbps
```

#upload:

```
sudo tc qdisc add dev eth0 handle 1: root htb default 11
sudo tc class add dev eth0 parent 1: classid 1:1 htb rate "$ULWONDERSHAPER"kbps
sudo tc class add dev eth0 parent 1:1 classid 1:11 htb rate "$ULWONDERSHAPER"kbps
```

### Packetloss

```
sudo /sbin/tc qdisc add dev eth0 root netem loss "$LOSS"%
```

```
sudo /sbin/tc qdisc change dev eth0 root netem loss "$LOSS"%
```

```
sudo /sbin/tc qdisc add dev eth1 root netem loss "$LOSS"%
```

```
sudo /sbin/tc qdisc change dev eth1 root netem loss "$LOSS"%
```

### Jitter

```
sudo /sbin/tc qdisc add dev eth0 root netem delay "$JITTER_START"ms "$JITTER_END"ms reorder 25% 50%
```

```
sudo /sbin/tc qdisc change dev eth0 root netem delay "$JITTER_START"ms "$JITTER_END"ms reorder 25% 50%
```

```
sudo /sbin/tc qdisc add dev eth1 root netem delay "$JITTER_START"ms "$JITTER_END"ms reorder 25% 50%
```

```
sudo /sbin/tc qdisc change dev eth1 root netem delay "$JITTER_START"ms "$JITTER_END"ms reorder 25% 50%
```

## Latency

```
sudo /sbin/tc qdisc add dev eth0 root netem delay "$DELAY"ms
```

```
sudo /sbin/tc qdisc change dev eth0 root netem delay "$DELAY"ms
```

```
sudo /sbin/tc qdisc add dev eth1 root netem delay "$DELAY"ms
```

```
sudo /sbin/tc qdisc change dev eth1 root netem delay "$DELAY"ms
```

## iptables - use to block a specific ip

These are the clear command(s).

In order to add a command simply replace the -D with -A

```
sudo /sbin/iptables -D FORWARD -s "$IP_CLEAR" -p tcp --sport 0:65535 --dport 443 -m state --state NEW,ESTABLISHED -j ACCEPT
sudo /sbin/iptables -D FORWARD -s "$IP_CLEAR" -p tcp --sport 0:65535 --dport 80 -m state --state NEW,ESTABLISHED -j ACCEPT
sudo /sbin/iptables -D FORWARD -s "$IP_CLEAR" -p tcp --dport 80 -j DROP
sudo /sbin/iptables -D FORWARD -s "$IP_CLEAR" -p tcp --dport 17990 -j DROP
sudo /sbin/iptables -D FORWARD -s "$IP_CLEAR" -p tcp --dport 17992 -j DROP
sudo /sbin/iptables -D FORWARD -s "$IP_CLEAR" -p tcp --dport 5061 -j DROP
sudo /sbin/iptables -D FORWARD -s "$IP_CLEAR" -p udp --match multiport --dports 50000:65535 -j DROP
sudo /sbin/iptables -D FORWARD -s "$IP_CLEAR" -p tcp --dport 8443 -j DROP
sudo /sbin/iptables -D FORWARD -s "$IP_CLEAR" -p tcp --dport 443 -j DROP
sudo /sbin/iptables -D FORWARD -s "$IP_CLEAR" -p tcp --sport 0:65535 --dport 5061 -m state --state NEW,ESTABLISHED -j ACCEPT
sudo /sbin/iptables -D FORWARD -s "$IP_CLEAR" -j DROP
```