Destructive Testing Cheat Sheet

by aodan via cheatography.com/83513/cs/19785/

Outbound Network Traffic on eth0

Tools	netem, tc, qdisc, iptables
Add delay 1000+-10ms to all packets to box 10.0.0.2	#tc qdisc add dev eth0 root handle 1: prio #tc qdisc add dev eth0 parent 1:3 handle 30: netem delay 1000ms 10ms distribution normal #tc filter add dev eth0 protocol ip parent 1:0 prio 3 u32 match ip dst 10.0.0.2/32 flowid 1:3
Use netem to emulate loss, duplication and corruption	#tc qdisc change dev eth0 handle 30: netem loss 0.1% #tc qdisc change dev eth0 handle 30: netem duplicate 1% #tc qdisc change dev eth0 handle 30: netem corrupt 0.1%
Cleanup	#tc qdisc del dev eth0 root

All commands should be run as root

Inbound Network Traffic on eth0

Tools	netem, tc, qdisc, iptables
Notes:	To use netem on incoming traffic we have to use ifb (intermediate functional block pseudo-device). This network device allows attaching queuing discplines to incoming packets.
To load and brinnig up ifb module	#modprobe ifb #ip link set dev ifb0 up
Add delay 1000+-10ms to all packets from box 10.0.0.2	#tc qdisc add dev eth0 ingress #tc filter add dev eth0 parent ffff: protocol ip u32 match ip src 10.0.0.2/32 flowid 1:1 action mirred egress redirect dev ifb0 #tc qdisc add dev ifb0 root netem delay 1000ms
Use netem to emulate loss, duplication and corruption	#tc qdisc change dev ifb0 root netem loss 0.1% #tc qdisc change dev ifb0 root netem duplicate 1% #tc qdisc change dev ifb0 root netem corrupt 0.1%
Cleanup	#tc qdisc del dev eth0 ingress #tc qdisc del dev ifb0 root

All commands should be run as root

Simulate Network Cable pull

Block all traffic except SSH	#iptables -A INPUT -i lo -j ACCEPT #iptables -A INPUT -p tcp -m tcp --dport 22 -j ACCEPT #iptables -A OUTPUT -o lo -j ACCEPT #iptables -A OUTPUT -p tcp --sport 22 -m state --state ESTABLISHED -j ACCEPT #iptables -P INPUT DROP #iptables -P OUTPUT DROP
Cleanup/Flush all rules	#iptables -F

All commands should be run as root in right order
It is better to place in script

Python Script to use X MB of memory on Server

```
#!/usr/bin/env python
import sys
import time
if len(sy s.argv) != 2:
        print " usage: fillmem <nu mbe r-o f-m ega byt es> "
        sys.exit()
count = int(sy s.a rgv[1])
megabyte = (0,) *(1024* 1024 / 8)
data = megabyte * count
while True:
        tim e.s leep(1)
```

Credit swiftcoder on stackexchange

Fill up disk space on server

dd - non readable - 1GB file	#dd if=/dev/zero of=file.txt count=1024 bs=1048576
dd - random - readable - 1GB file	#dd if=/dev/urandom of=file.txt bs=1048576 count=1024

stress

Use 1GB of Memory for 1 hour	stress --vm 2 --vm-bytes 1024M --vm-hang 3600
Use 4 CPUs calculating sqrt of randint for 1 hour	stress --cpu 4 --timeout 3600
Stress IO	stress --io 4

more info: https://linux.die.net/man/1/stress

Commands can be combined