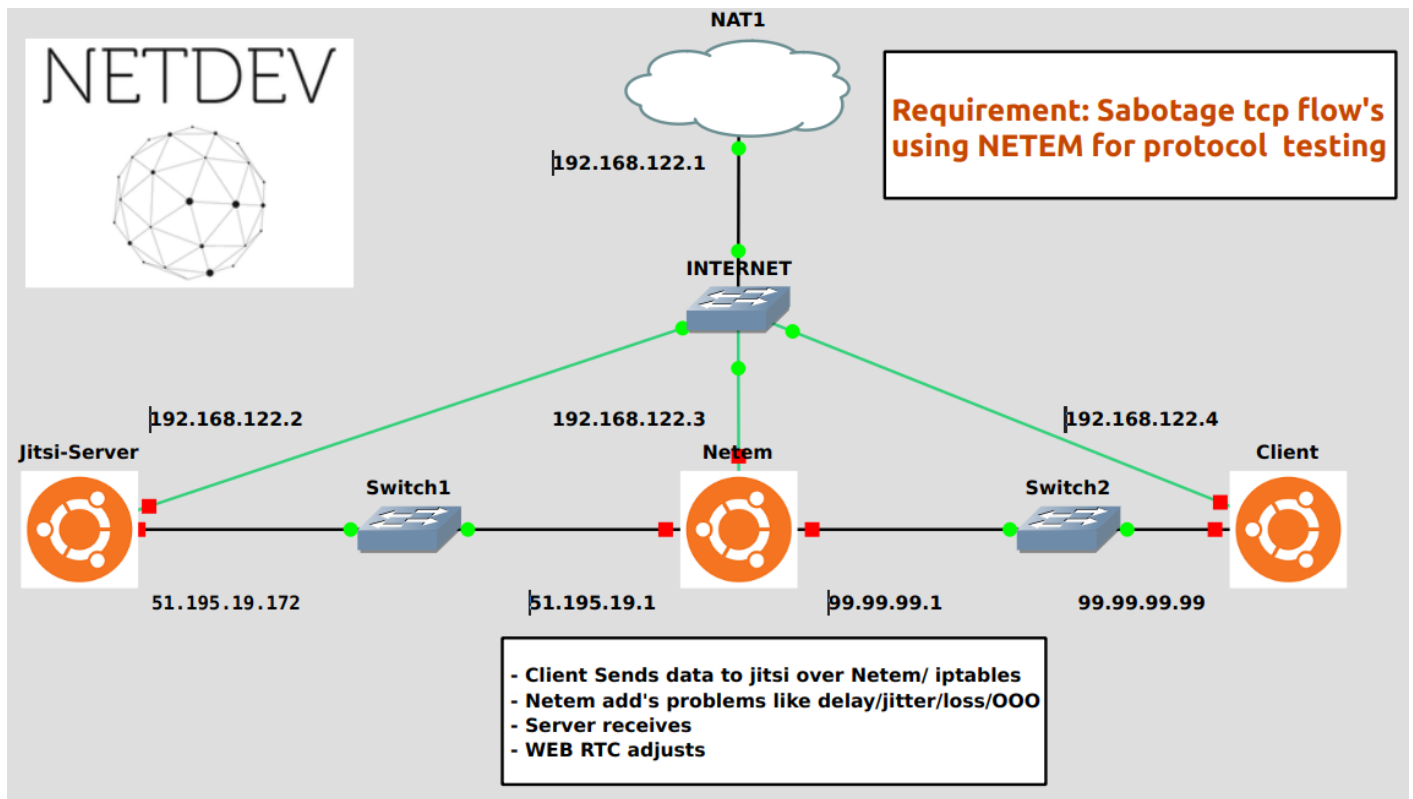


# Delay and loss tests using netem on a healthy network



## Purpose of this document

We needed a lab environment that can provide a "break on purpose network" to developers to test their code on it. You can add;

- delay
- packet loss
- jitter
- duplicate packets
- unordered flows

to a connection on the fly. To do it we need "netem" modules help.

## NETEM

Since kernel 2.6 netem is included in iproute2 package, basically all modern distro's has it now. You can find a documentation on [Netem](#)

i am going to explain the required steps here ;

- create a master traffic class on interface ens8

```
sudo tc qdisc add dev ens8 root handle 1: prio
```

- Attach a subclass to tc 1: as 3

```
sudo tc qdisc add dev ens8 parent 1:3 handle 30: netem delay 1000ms
sudo tc filter add dev ens8 protocol ip parent 1:0 prio 3 u32 match ip dst
51.195.19.172 flowid 1:3
```

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