Lab 9: PKI HTTPS PROXY

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1 Network configuration

1. As we start the PC Router virtual machine, we need to modify the IP configuration. First, enable the interface connected to the internet. To show all the available interfaces, use:

```
ip link
```

```
aah@aah-server:~$ ip link
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN mode DEFAULT group default qlen
1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP mode DEFAULT group def
ault qlen 1000
    link/ether 08:00:27:1b:84:85 brd ff:ff:ff:ff:ff:ff
3: enp0s9: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP mode DEFAULT group def
ault qlen 1000
    link/ether 08:00:27:a6:fa:d5 brd ff:ff:ff:ff:ff:ff
4: enp0s8: <BROADCAST,MULTICAST> mtu 1500 qdisc noop state DOWN mode DEFAULT group default qlen 1000
    link/ether 08:00:27:e1:1e:c2 brd ff:ff:ff:ff:ff:ff
5: docker0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc noqueue state DOWN mode DEFAULT group
 default
    link/ether 02:42:5e:4c:0f:71 brd ff:ff:ff:ff:ff:ff
```

There are 3 ip interfaces that interest us. `enp0s3` and `enp0s9` are host-only adapters. Observe that interface `enp0s8` is down. It corresponds to the NAT interface in the VirtualBox network configuration. We need to enable the interface and assign it an IP address using DHCP.

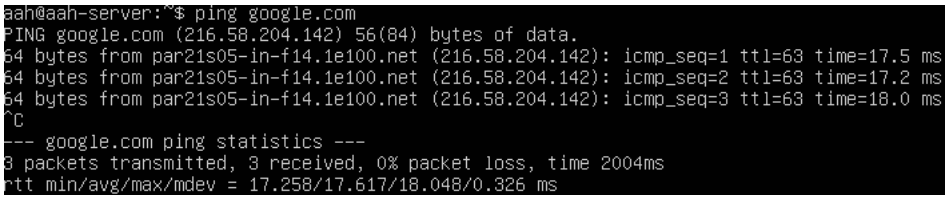
```
ifconfig enp0s8 up
```

Now the interface is enabled but it does not have an IP address. To ask for a new DHCP lease, use:

```
dhclient enp0s8
```

Now the DHCP sent a lease and the interface now has an IP address and an active internet connection.

To prove that the VM is connected to the internet, we ping the `google.com` server.



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