

Firewall Host Configuration

- Start up a new network by giving the firewall host an IP address such as 192.168.10.1 on the second network interface using the following command (the NIC names are specific to my network in this case, yours may be different):

```
# ip addr add 192.168.10.1 dev eth1
```

- Enable the NIC with the "up" flag as follows:

```
# ip link set eth1 up
```

- Enable IP Forwarding On using the following command:

```
# echo "1" >/proc/sys/net/ipv4/ip_forward
```

- New routing rules for the current network:

```
# ip route add 192.168.0.0/24 via 192.168.0.8 dev eth0
```

- Configure a new routing rule for the new internal network by making everything in the subnet use the firewall host as the gateway as follows:

```
# ip route add 192.168.0.0/24 via 192.168.10.1 dev eth0
```

Internal Host Configuration

- Disable the NIC that is connected to the Internet:

```
# ip link set eno1 down
```

- Enable the second NIC that is connected to the firewall host and assign an IP address on that subnet:

```
# ip addr add 192.168.10.2 dev eth1  
# ip link set eth1 up
```

- Add a routing rule to route the firewall host as the default gateway for the internal network.

```
# ip route add default via 192.168.10.1
```

Make sure that both firewall host and internal hosts have the same nameserver configurations. This configuration can be seen in the resolv.conf file in /etc directory.