dhcp_setup

1) server side :

1) IP configuration :

we will start by giving the server a static IP :

```
sudo nano /etc/netplan/01-network-manager-all.yaml
```


image.png

now the server address is 192.168.1.1
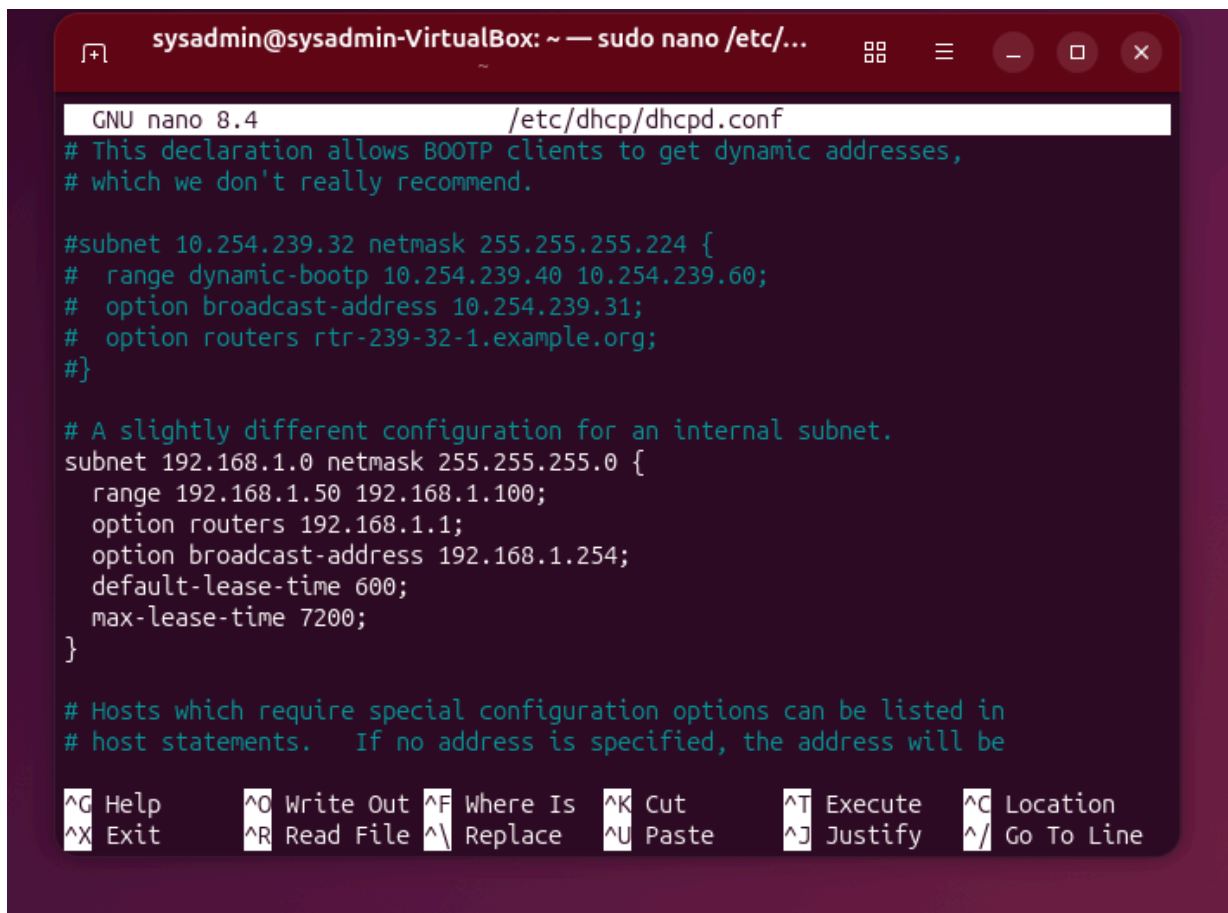
```
sudo netplan apply
```


image-1.png

2) dhcp-server installation :

```
sudo apt install isc-dhcp-server
```

3) dhcp-server configuration :

```
sudo nano /etc/dhcp/dhcpd.conf
```


GNU nano 8.4   /etc/dhcp/dhcpd.conf
```
# This declaration allows BOOTP clients to get dynamic addresses,
# which we don't really recommend.

#subnet 10.254.239.32 netmask 255.255.255.224 {
#   range dynamic-bootp 10.254.239.40 10.254.239.60;
#   option broadcast-address 10.254.239.31;
#   option routers rtr-239-32-1.example.org;
#}

# A slightly different configuration for an internal subnet.
subnet 192.168.1.0 netmask 255.255.255.0 {
  range 192.168.1.50 192.168.1.100;
  option routers 192.168.1.1;
  option broadcast-address 192.168.1.254;
  default-lease-time 600;
  max-lease-time 7200;
}

# Hosts which require special configuration options can be listed in
# host statements.   If no address is specified, the address will be
```

image-2.png

restarting the service :

```
sudo systemctl restart isc-dhcp-server
```

```
sudo systemctl status isc-dhcp-server
```

image-3.png

2) client side :

1) client configuration

```
sudo nano /etc/netplan/01-network-manager-all.yaml
```


image-4.png
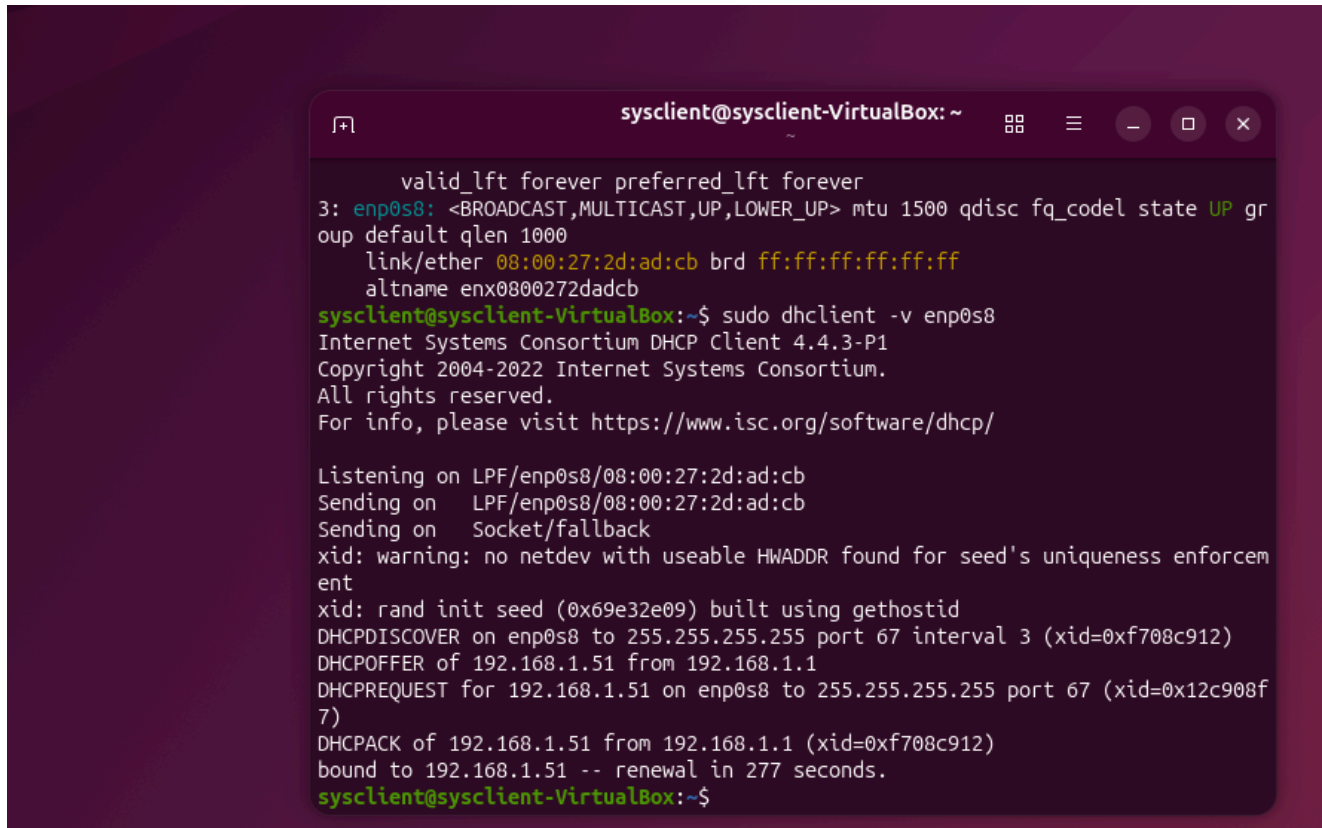
```
sudo netplan apply
```

2) Getting an ip from the dhcp server :

```
sudo dhclient -v enp0s3
```


image-5.png

```
ip a show enps8
```


image-7.png

3) pinging the server :

```
ping 192.168.1.1
```
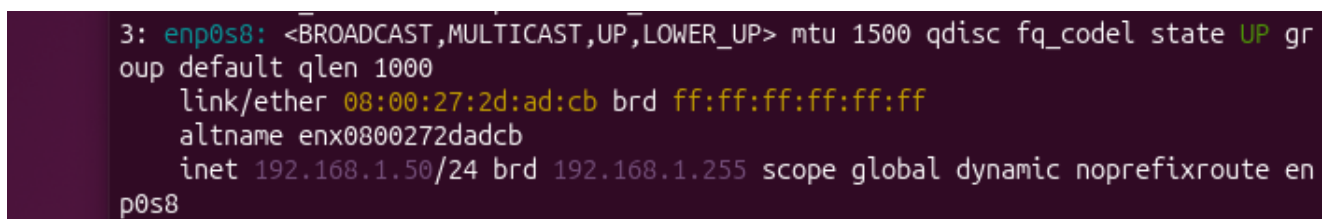
```
sysclient@sysclient-VirtualBox:~$ ping 192.168.1.1
PING 192.168.1.1 (192.168.1.1) 56(84) bytes of data.
64 bytes from 192.168.1.1: icmp_seq=1 ttl=64 time=0.316 ms
64 bytes from 192.168.1.1: icmp_seq=2 ttl=64 time=0.957 ms
64 bytes from 192.168.1.1: icmp_seq=3 ttl=64 time=0.336 ms
64 bytes from 192.168.1.1: icmp_seq=4 ttl=64 time=0.530 ms
^C
--- 192.168.1.1 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3191ms
rtt min/avg/max/mdev = 0.316/0.534/0.957/0.257 ms
```

image-8.png