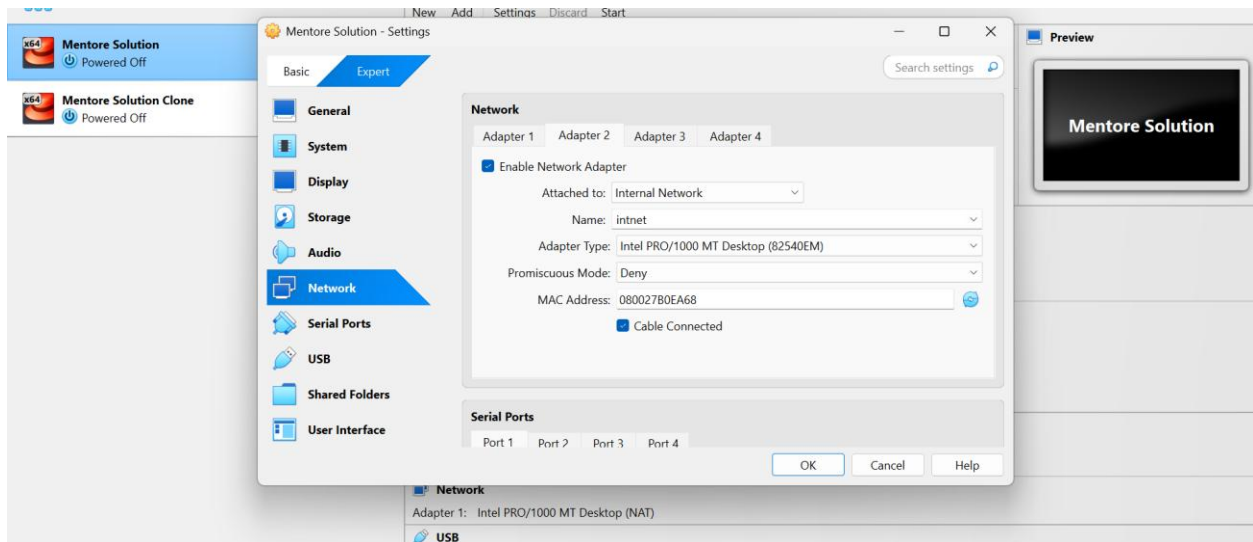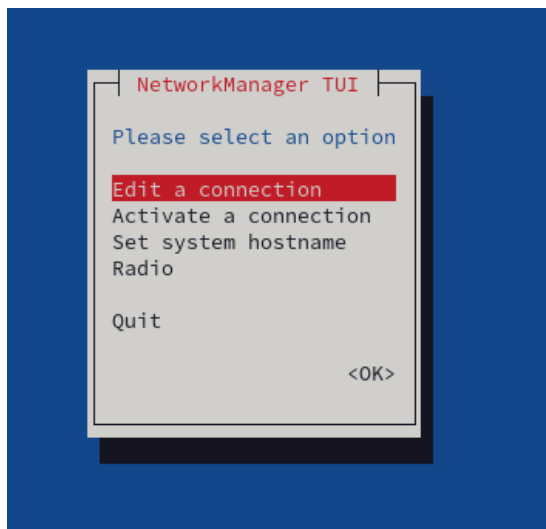# Networking

Set Adapter2 as internal network to both machines
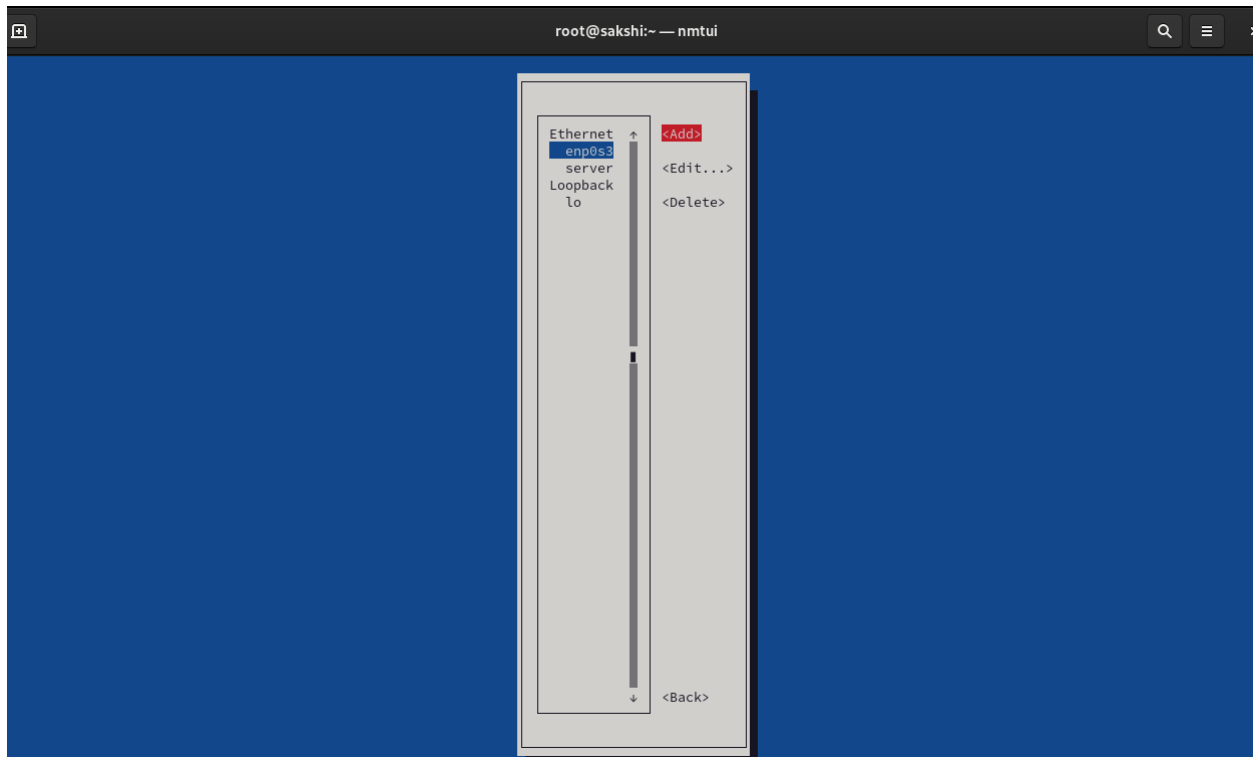

For Machine 1:

Click on edit a connection

Click on add

```
Ethernet    ↑    <Add>
  enp0s3
  server         <Edit...>
Loopback
  lo             <Delete>




                 ↓    <Back>
```

Add address to IPv4

```
                        ┤ Edit Connection ├
          Profile name server_____
               Device enp0s8 (08:00:27:B0:EA:68)_____

  = ETHERNET                                              <Show>
  = 802.1X SECURITY                                       <Show>

  ═ IPv4 CONFIGURATION <Automatic>                        <Hide>
            Addresses 192.168.0.3/24_____ <Remove>
                      <Add...>
              Gateway 192.168.0.1_____
          DNS servers <Add...>
       Search domains <Add...>

              Routing (No custom routes) <Edit...>
  [ ] Never use this network for default route
  [ ] Ignore automatically obtained routes
  [ ] Ignore automatically obtained DNS parameters

  [ ] Require IPv4 addressing for this connection


  = IPv6 CONFIGURATION <Automatic>                        <Show>

  [X] Automatically connect
  [X] Available to all users

                                            <Cancel> <OK>
```

```
[root@sakshi ~]# ifconfig
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 10.0.2.15  netmask 255.255.255.0  broadcast 10.0.2.255
        inet6 fe80::a00:27ff:fe38:e03  prefixlen 64  scopeid 0x20<link>
        inet6 fd00::a00:27ff:fe38:e03  prefixlen 64  scopeid 0x0<global>
        ether 08:00:27:38:0e:03  txqueuelen 1000  (Ethernet)
        RX packets 187  bytes 34417 (33.6 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 233  bytes 23300 (22.7 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

enp0s8: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 192.168.0.3  netmask 255.255.255.0  broadcast 192.168.0.255
        inet6 fe80::b11f:df66:115f:6728  prefixlen 64  scopeid 0x20<link>
        ether 08:00:27:b0:ea:68  txqueuelen 1000  (Ethernet)
        RX packets 109  bytes 19918 (19.4 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 380  bytes 57316 (55.9 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
        inet 127.0.0.1  netmask 255.0.0.0
        inet6 ::1  prefixlen 128  scopeid 0x10<host>
        loop  txqueuelen 1000  (Local Loopback)
        RX packets 44  bytes 4302 (4.2 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 44  bytes 4302 (4.2 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

[root@sakshi ~]# ping 192.168.0.3
PING 192.168.0.3 (192.168.0.3) 56(84) bytes of data.
64 bytes from 192.168.0.3: icmp_seq=1 ttl=64 time=0.107 ms
64 bytes from 192.168.0.3: icmp_seq=2 ttl=64 time=0.084 ms
64 bytes from 192.168.0.3: icmp_seq=3 ttl=64 time=0.069 ms
64 bytes from 192.168.0.3: icmp_seq=4 ttl=64 time=0.070 ms
^C
--- 192.168.0.3 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3064ms
rtt min/avg/max/mdev = 0.069/0.082/0.107/0.015 ms
[root@sakshi ~]#
```

Machine 2:

```
                          ┤ Edit Connection ├

        Profile name client_____
              Device enp0s8 (08:00:27:3B:4E:7F)_____

  = ETHERNET                                              <Show>
  = 802.1X SECURITY                                       <Show>

  ╤ IPv4 CONFIGURATION <Automatic>                        <Hide>
  │        Addresses 192.168.0.2/24_____ <Remove>
  │                  <Add...>
  │          Gateway 192.168.0.1_____
  │      DNS servers <Add...>
  │   Search domains <Add...>
  │
  │          Routing (No custom routes) <Edit...>
  │ [ ] Never use this network for default route
  │ [ ] Ignore automatically obtained routes
  │ [ ] Ignore automatically obtained DNS parameters
  │
  │ [ ] Require IPv4 addressing for this connection
  └

  = IPv6 CONFIGURATION <Automatic>                        <Show>

  [X] Automatically connect
  [X] Available to all users

                                              <Cancel> <OK>
```

```
[root@sakshi ~]# nmtui
[root@sakshi ~]# ifconfig
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 10.0.2.15  netmask 255.255.255.0  broadcast 10.0.2.255
        inet6 fe80::a00:27ff:fe38:e03  prefixlen 64  scopeid 0x20<link>
        inet6 fd00::a00:27ff:fe38:e03  prefixlen 64  scopeid 0x0<global>
        ether 08:00:27:38:0e:03  txqueuelen 1000  (Ethernet)
        RX packets 299  bytes 134577 (131.4 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 346  bytes 47357 (46.2 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

enp0s8: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 192.168.0.2  netmask 255.255.255.0  broadcast 192.168.0.255
        inet6 fe80::2176:8792:e756:59bd  prefixlen 64  scopeid 0x20<link>
        ether 08:00:27:3b:4e:7f  txqueuelen 1000  (Ethernet)
        RX packets 0  bytes 0 (0.0 B)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 27  bytes 4034 (3.9 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
        inet 127.0.0.1  netmask 255.0.0.0
        inet6 ::1  prefixlen 128  scopeid 0x10<host>
        loop  txqueuelen 1000  (Local Loopback)
        RX packets 17  bytes 2068 (2.0 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 17  bytes 2068 (2.0 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

[root@sakshi ~]# ping 192.168.0.2
PING 192.168.0.2 (192.168.0.2) 56(84) bytes of data.
64 bytes from 192.168.0.2: icmp_seq=1 ttl=64 time=0.217 ms
64 bytes from 192.168.0.2: icmp_seq=2 ttl=64 time=0.167 ms
64 bytes from 192.168.0.2: icmp_seq=3 ttl=64 time=0.132 ms
64 bytes from 192.168.0.2: icmp_seq=4 ttl=64 time=0.043 ms
64 bytes from 192.168.0.2: icmp_seq=5 ttl=64 time=0.071 ms
^C
--- 192.168.0.2 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4085ms
rtt min/avg/max/mdev = 0.043/0.126/0.217/0.063 ms
[root@sakshi ~]#
```

Connection Between both machines:

```
[root@sakshi ~]# nmtui
[root@sakshi ~]# ping 192.168.0.2
PING 192.168.0.2 (192.168.0.2) 56(84) bytes of data.
64 bytes from 192.168.0.2: icmp_seq=1 ttl=64 time=2.43 ms
64 bytes from 192.168.0.2: icmp_seq=2 ttl=64 time=5.85 ms
64 bytes from 192.168.0.2: icmp_seq=3 ttl=64 time=4.09 ms
64 bytes from 192.168.0.2: icmp_seq=4 ttl=64 time=4.92 ms
64 bytes from 192.168.0.2: icmp_seq=5 ttl=64 time=1.49 ms
^C
--- 192.168.0.2 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4010ms
rtt min/avg/max/mdev = 1.489/3.756/5.848/1.597 ms
[root@sakshi ~]# ping 192.168.0.3
PING 192.168.0.3 (192.168.0.3) 56(84) bytes of data.
64 bytes from 192.168.0.3: icmp_seq=1 ttl=64 time=0.279 ms
64 bytes from 192.168.0.3: icmp_seq=2 ttl=64 time=0.083 ms
64 bytes from 192.168.0.3: icmp_seq=3 ttl=64 time=0.081 ms
64 bytes from 192.168.0.3: icmp_seq=4 ttl=64 time=0.106 ms
64 bytes from 192.168.0.3: icmp_seq=5 ttl=64 time=0.130 ms
64 bytes from 192.168.0.3: icmp_seq=6 ttl=64 time=0.100 ms
64 bytes from 192.168.0.3: icmp_seq=7 ttl=64 time=0.082 ms
^C
--- 192.168.0.3 ping statistics ---
7 packets transmitted, 7 received, 0% packet loss, time 6140ms
rtt min/avg/max/mdev = 0.081/0.123/0.279/0.065 ms
```