

1-Install network manager

2-Configure the scenario

3-In vm2, install apache2

4-In vm2 enable access to apache2

from vm1

curl http://192.168.10.2

-----install network manager-----

in vm1

```
$sudo apt install network-manager
```

```
$sudo nano /etc/default/grub
```

```
GRUB_CMDLINE_LINUX="net.ifnames=0 biosdevname=0"
```

```
$sudo grub-mkconfig -o /boot/grub/grub.cfg
```

```
$sudo touch /etc/NetworkManager/conf.d/10-globally-managed-devices.conf
```

```
$sudo reboot
```

-----installing firewall-----

```
sudo apt install firewalld
```

```
sudo systemctl enable --now firewalld
```

```
sudo firewall-cmd --add-service=http
```

```
sudo firewall-cmd --permanent --add-service=http
```

```
sudo firewall-cmd --reload
```

clone vm1 to have vm2 which will have the same nw manager installation && firewall installation

in vm1

```
sudo nmcli con add con-name ExternalIF type ethernet ifname eth0 ip4 192.168.1.200/24 gw4  
192.168.1.1
```

```
sudo nmcli con mod ExternalIF ipv4.dns 192.168.1.1
```

```
sudo nmcli con mod ExternalIF connection.zone external
```

```
sudo nmcli con up ExternalIF
```

```
sudo nmcli con add con-name InternalIF type ethernet ifname eth1 ip4 192.168.10.1/24
```

```
sudo nmcli con up InternalIF
```

in vm2

```
sudo nmcli con add con-name mylan type ethernet ifname eth0 ip4 192.168.10.2/24 gw4  
192.168.10.1
```

```
sudo nmcli con mod mylan ipv4.dns 192.168.1.1
```

```
sudo nmcli con up mylan
```

```
sudo apt update
```

```
sudo install apache2
```

from vm1 curl http://192.168.10.2