

Mission 2 : DHCP

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Paramétrage du réseaux en IP Fixe :

```
etudiant@debian:~$ cat /etc/network/interfaces
# This file describes the network interfaces available on your system
# and how to activate them. For more information, see interfaces(5).

source /etc/network/interfaces.d/*

# The loopback network interface
auto lo
iface lo inet loopback

# The primary network interface
allow-hotplug ens3
iface ens3 inet static
    address 172.16.53.2/24
    gateway 172.16.53.254
    # dns-* options are implemented by the resolvconf package, if installed
    dns-nameservers 1.1.1.1
etudiant@debian:~$
```

Mise à jours du serveur et redémarrage :

```
sudo apt update && sudo apt upgrade -y && sudo reboot now
```

Installation du service DHCP :

```
sudo apt install kea-dhcp4-server -y
```

Sauvegarde du fichier de configuration d'origine :

```
sudo mv /etc/kea/kea-dhcp4.conf /etc/kea/kea-dhcp4.conf.bak
```

Confirmation de la carte réseau utilisé pour le DHCP (ici ens3) :

```
etudiant@debian:~$ ip a
2: ens3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group
default qlen 1000
    link/ether 50:6b:8d:9e:cf:ef brd ff:ff:ff:ff:ff:ff
    altname enp0s3
    inet 172.16.53.2/24 brd 172.16.53.255 scope global ens3
        valid_lft forever preferred_lft forever
    inet6 fe80::526b:8dff:fe9e:cfef/64 scope link
        valid_lft forever preferred_lft forever
```

Configuration du service DHCP :

```
sudo nano /etc/kea/kea-dhcp4.conf
```

```
{
  "Dhcp4": {
    "interfaces-config": {
      "interfaces": [
        "ens3"
      ]
    },
    "valid-lifetime": 691200,
    "renew-timer": 345600,
    "rebind-timer": 604800,
    "authoritative": true,
    "lease-database": {
      "type": "memfile",
      "persist": true,
      "name": "/var/lib/kea/kea-leases4.csv",
      "lfc-interval": 3600
    },
    "subnet4": [
      {
        "subnet": "192.168.3.0/26",
        "pools": [
          {
            "pool": "192.168.3.2 - 192.168.3.62"
          }
        ],
        "option-data": [
          {
            "name": "routers",
            "data": "192.168.3.1"
          },
          {
            "name": "domain-name-servers",
            "data": "1.1.1.1"
          }
        ]
      }
    ],
    {
      "subnet": "192.168.3.64/26",
      "pools": [
        {
```

```

        "pool": "192.168.3.66 - 192.168.3.126"
    }
],
"option-data": [
    {
        "name": "routers",
        "data": "192.168.3.65"
    },
    {
        "name": "domain-name-servers",
        "data": "1.1.1.1"
    }
]
},
{
    "subnet": "192.168.3.128/27",
    "pools": [
        {
            "pool": "192.168.3.130 - 192.168.3.158"
        }
    ],
    "option-data": [
        {
            "name": "routers",
            "data": "192.168.3.129"
        },
        {
            "name": "domain-name-servers",
            "data": "1.1.1.1"
        }
    ]
},
{
    "subnet": "192.168.3.160/27",
    "pools": [
        {
            "pool": "192.168.3.162 - 192.168.3.190"
        }
    ],
    "option-data": [
        {
            "name": "routers",
            "data": "192.168.3.161"
        },
        {
            "name": "domain-name-servers",
            "data": "1.1.1.1"
        }
    ]
}

```

```

    }
  ]
},
{
  "subnet": "192.168.3.192/27",
  "pools": [
    {
      "pool": "192.168.3.194 - 192.168.3.222"
    }
  ],
  "option-data": [
    {
      "name": "routers",
      "data": "192.168.3.193"
    },
    {
      "name": "domain-name-servers",
      "data": "1.1.1.1"
    }
  ]
},
{
  "subnet": "192.168.3.224/28",
  "pools": [
    {
      "pool": "192.168.3.226 - 192.168.3.238"
    }
  ],
  "option-data": [
    {
      "name": "routers",
      "data": "192.168.3.225"
    },
    {
      "name": "domain-name-servers",
      "data": "1.1.1.1"
    }
  ]
}
]
}
}
}

```

Redémarrage du service :

```
sudo systemctl restart kea-dhcp4-server.service
```

Vérification de son bon fonctionnement :

```
sudo systemctl status kea-dhcp4-server.service
```

```
● kea-dhcp4-server.service - Kea IPv4 DHCP daemon
   Loaded: loaded (/lib/systemd/system/kea-dhcp4-server.service; enabled;
   preset: enabled)
   Active: active (running) since Mon 2025-09-15 11:40:39 CEST; 1min 26s ago
     Docs: man:kea-dhcp4(8)
  Main PID: 930 (kea-dhcp4)
    Tasks: 5 (limit: 2142)
   Memory: 2.6M
      CPU: 35ms
   CGroup: /system.slice/kea-dhcp4-server.service
           └─930 /usr/sbin/kea-dhcp4 -c /etc/kea/kea-dhcp4.conf
```