Chapitre 3 - Serveur Debian DS1 : installation du service DHCP

3.1. Serveur DS1

Installation du paquetage isc-dhcp-server :

```
root@DS1: ~#apt-get install isc-dhcp-server
Lecture des listes de paquets... Fait
Construction de l'arbre des dépendances... Fait
Lecture des informations d'état... Fait
Les paquets supplémentaires suivants seront installés :
  isc-dhcp-common policycoreutils selinux-utils
Paquets suggérés :
  polkitd isc-dhcp-server-ldap ieee-data
Les NOUVEAUX paquets suivants seront installés :
  isc-dhcp-common isc-dhcp-server policycoreutils selinux-utils
0 mis à jour, 4 nouvellement installés, 0 à enlever et 27 non mis à jour.
Il est nécessaire de prendre 1 832 kB dans les archives.
Après cette opération, 8 002 ko d'espace disque supplémentaires seront utilisés.
Souhaitez-vous continuer ? [O/n] o
Réception de : 1 http://deb.debian.org/debian trixie/main amd64 isc-dhcp-common amd64 4.4.3-P1-8 [118 kB]
Réception de : 2 http://deb.debian.org/debian trixie/main amd64 isc-dhcp-server amd64 4.4.3-P1-8 [1 480 kB]
33% [2 isc-dhcp-server 515 kB/1 480 kB 35%]
```

Sauvegarde :

```
root@DS1: ~#cp /etc/dhcp/dhcpd.conf /etc/dhcp/dhcpd.conf.sauv
root@DS1: ~#_
```

Modification du fichier dhcpd.conf :

```
# dhcpd.conf
#
# Sample configuration file for ISC dhcpd
#

# option definitions common to all supported networks...
option domain-name "sio-exupery.local";
option domain-name-servers 192.168.4.254;

default-lease-time 86400;
max-lease-time 604800;

# The ddns-updates-style parameter controls whether or not the server will
# attempt to do a DNS update when a lease is confirmed. We default to the
# behavior of the version 2 packages ('none', since DHCP v2 didn't
# have support for DDNS.)
ddns-update-style none;

# If this DHCP server is the official DHCP server for the local
# network, the authoritative directive should be uncommented.
authoritative;

# Use this to send dhcp log messages to a different log file (you also
# have to hack syslog.conf to complete the redirection).
log-facility local7;

# No service will be given on this subnet, but declaring it helps the
# DHCP server to understand the network topology.

#subnet 10.152.187.0 netmask 255.255.255.0 {
#}

# This is a very basic subnet declaration.

subnet 192.168.4.0 netmask 255.255.255.0 {
# étendue de la plage DHCP
  range 192.168.4.11 192.168.4.100;
# passerelle
  option routers 192.168.4.254;
# masque de sous-réseau
  option subnet-mask 255.255.255.0;
}

# This declaration allows BOOTP clients to get dynamic addresses,
# which we don't really recommend.
```

Modification de l'interface :

```
  GNU nano 8.4                                                    /etc/default/
# Defaults for isc-dhcp-server (sourced by /etc/init.d/isc-dhcp-server)

# Path to dhcpd's config file (default: /etc/dhcp/dhcpd.conf).
#DHCPDv4_CONF=/etc/dhcp/dhcpd.conf
#DHCPDv6_CONF=/etc/dhcp/dhcpd6.conf

# Path to dhcpd's PID file (default: /var/run/dhcpd.pid).
#DHCPDv4_PID=/var/run/dhcpd.pid
#DHCPDv6_PID=/var/run/dhcpd6.pid

# Additional options to start dhcpd with.
#       Don't use options -cf or -pf here; use DHCPD_CONF/ DHCPD_PID instead
#OPTIONS=""

# On what interfaces should the DHCP server (dhcpd) serve DHCP requests?
#       Separate multiple interfaces with spaces, e.g. "eth0 eth1".
INTERFACESv4="enp0s8"
INTERFACESv6=""
```

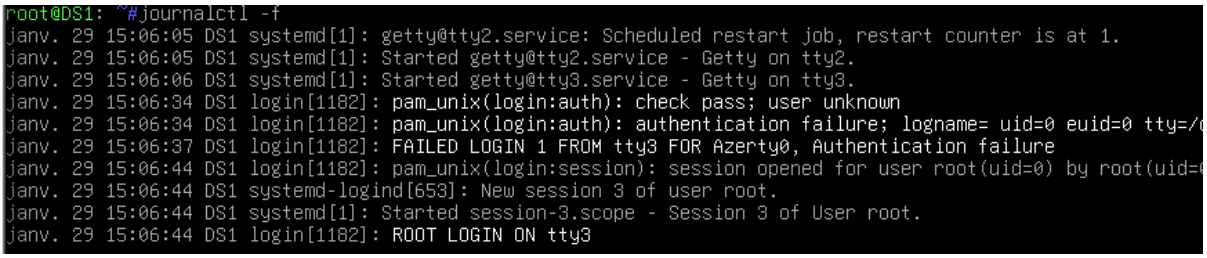
Lancement du service DHCP :

```
root@DS1: ~#systemctl start isc-dhcp-server
root@DS1: ~#
```

Vérification du bon démarrage du système :

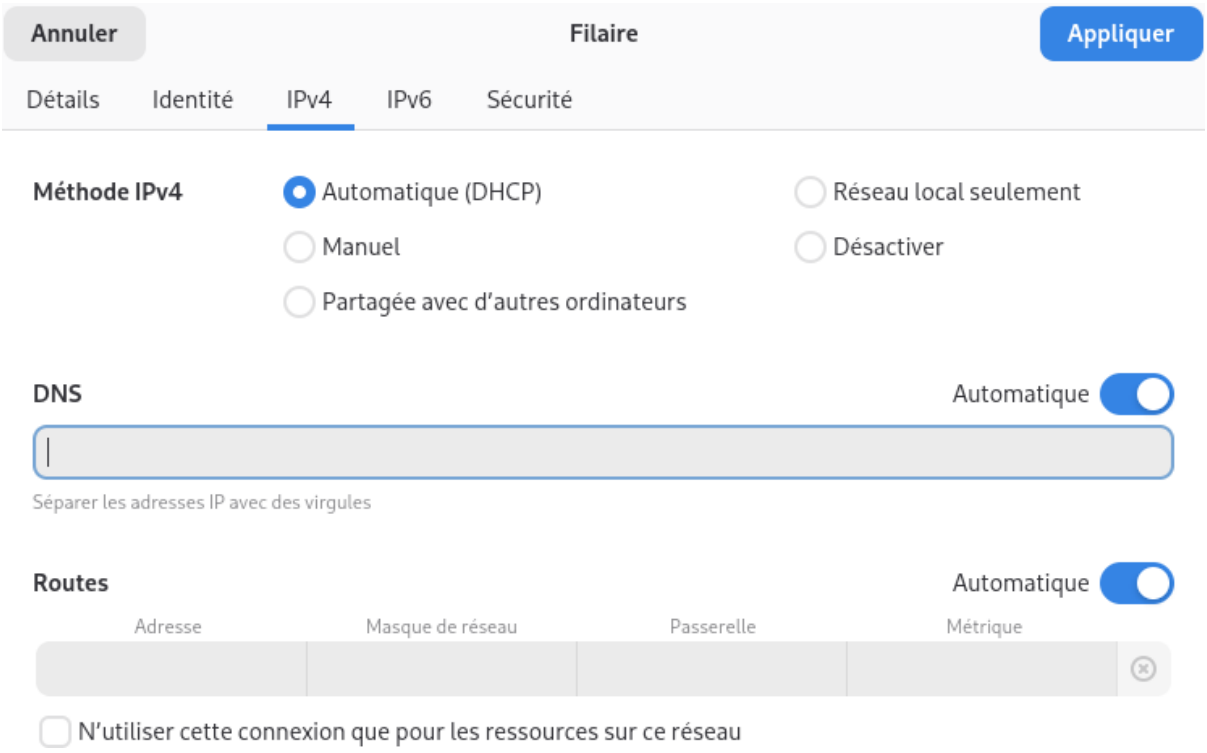
```
root@DS1: ~#systemctl status isc-dhcp-server
● isc-dhcp-server.service - LSB: DHCP server
     Loaded: loaded (/etc/init.d/isc-dhcp-server; generated)
     Active: active (running) since Thu 2026-01-29 15:02:56 CET; 1min 36s ago
 Invocation: 56b6ff3863684e2683fcb6e730f38c8d
       Docs: man:systemd-sysv-generator(8)
    Process: 1150 ExecStart=/etc/init.d/isc-dhcp-server start (code=exited, status=0/SUCCESS)
      Tasks: 1 (limit: 2303)
     Memory: 6.1M (peak: 10.4M)
        CPU: 202ms
     CGroup: /system.slice/isc-dhcp-server.service
             └─1106 /usr/sbin/dhcpd -4 -q -cf /etc/dhcp/dhcpd.conf

janv. 29 15:02:54 DS1 systemd[1]: Starting isc-dhcp-server.service - LSB: DHCP server...
janv. 29 15:02:54 DS1 isc-dhcp-server[1150]: Launching IPv4 server only.
janv. 29 15:02:54 DS1 isc-dhcp-server[1150]: Starting ISC DHCPv4 server: dhcpdingore stale pid file /var/
janv. 29 15:02:56 DS1 isc-dhcp-server[1150]: .
janv. 29 15:02:56 DS1 systemd[1]: Started isc-dhcp-server.service - LSB: DHCP server.
root@DS1: ~#_
```

Lancement de la commande journalctl –f dans une autre console :

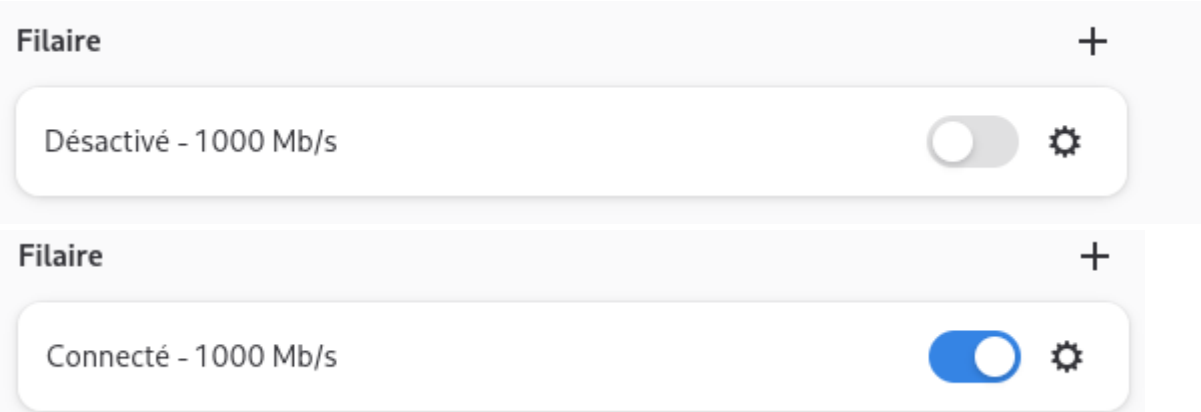


3.2. Client DD1

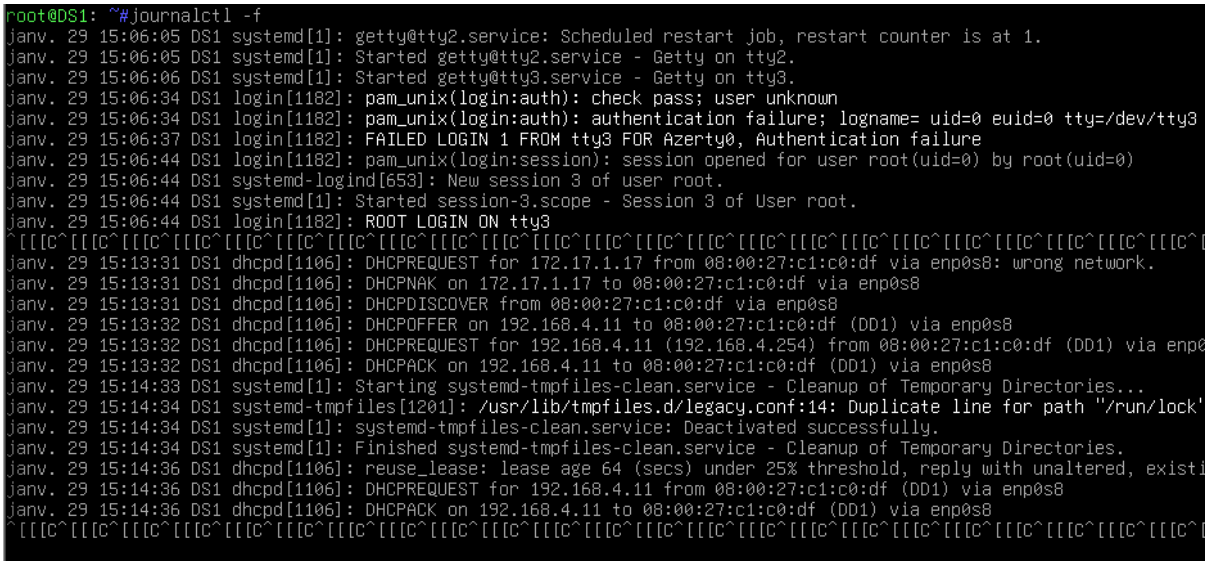
Passage en mode Automatique dans la connexion de DD1 :



Désactivation réactivation de la carte réseau :



Ajout de l'action dans le fichier log :



Constatation de l'attribution de l'adress ip avec ip a :

```
sio@DD1:~$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group defaul
t qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host noprefixroute
       valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP gr
oup default qlen 1000
    link/ether 08:00:27:c1:c0:df brd ff:ff:ff:ff:ff:ff
    altname enx080027c1c0df
    inet 192.168.4.11/24 brd 192.168.4.255 scope global dynamic noprefixroute en
p0s3
       valid_lft 86192sec preferred_lft 86192sec
    inet6 fe80::a00:27ff:fec1:c0df/64 scope link noprefixroute
       valid_lft forever preferred_lft forever
sio@DD1:~$
```

Vérfication de l'attribution de la passerelle par défaut :

```
sio@DD1:~$ ip r
default via 192.168.4.254 dev enp0s3 proto dhcp src 192.168.4.11 metric 100
192.168.4.0/24 dev enp0s3 proto kernel scope link src 192.168.4.11 metric 100
```

Vérification de l'attribution du nom de la zone DNS ainsi que l'adresse du serveur DNS :

```
sio@DD1:~$ cat /etc/resolv.conf
# Generated by NetworkManager
search sio-exupery.local
nameserver 192.168.4.254
```