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Copiar la estructura de sota, tantes vegades com sigui necessari

Entrega una captura del resultat de la comanda `ip a` (on també es vegi el prompt modificat de la màquina)

```
jue sep 19 11:47:07 romeroz@zeus:/etc/netplan$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default 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
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:00:27:8e:8c:e1 brd ff:ff:ff:ff:ff:ff
    inet 10.0.2.15/24 metric 100 brd 10.0.2.255 scope global dynamic enp0s3
        valid_lft 85716sec preferred_lft 85716sec
    inet6 fe80::a00:27ff:fe8e:8ce1/64 scope link
        valid_lft forever preferred_lft forever
3: enp0s8: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:00:27:d3:5c:04 brd ff:ff:ff:ff:ff:ff
    inet 172.30.1.1/24 brd 172.30.1.255 scope global enp0s8
        valid_lft forever preferred_lft forever
    inet6 fe80::a00:27ff:fed3:5c04/64 scope link
        valid_lft forever preferred_lft forever
```

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Entrega una captura del contingut del fitxer /etc/default/isc-dhcp-server.

```
jue sep 19 11:55:44 romeroz@zeus:/$ cat /etc/default/isc-dhcp-server
# 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=""
```

Entrega una captura on es vegi que has realitzat la còpia


```
jue sep 19 11:59:16 romeroz@zeus:/etc/dhcp$ sudo cp dhcpd.conf dhcpd.conf.copia
jue sep 19 11:59:36 romeroz@zeus:/etc/dhcp$ ls -la
total 40
drwxr-xr-x  5 root root  4096 sep 19 11:59 .
drwxr-xr-x 101 root root  4096 sep 19 11:52 ..
drwxr-xr-x  2 root dhcpd  4096 sep 19 11:52 ddns-keys
-rw-r--r--  1 root root  1426 may  5  2022 debug
-rw-r--r--  1 root root  1735 may  5  2022 dhclient.conf
drwxr-xr-x  2 root root  4096 feb 16  2024 dhclient-enter-hooks.d
drwxr-xr-x  2 root root  4096 feb 16  2024 dhclient-exit-hooks.d
-rw-r--r--  1 root root  3331 ene 31  2023 dhcpd6.conf
-rw-r--r--  1 root root  3646 ene 31  2023 dhcpd.conf
-rw-r--r--  1 root root  3646 sep 19 11:59 dhcpd.conf.copia
jue sep 19 11:59:41 romeroz@zeus:/etc/dhcp$ _
```

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Entrega una captura amb la instrucció utilitzada per reiniciar el servidor i el resultat que llença.

```
jue sep 19 11:59:41 romeroz@zeus:/etc/dhcp$ sudo systemctl restart isc-dhcp-server
jue sep 19 12:01:40 romeroz@zeus:/etc/dhcp$ sudo systemctl status isc-dhcp-server
* isc-dhcp-server.service - ISC DHCP IPv4 server
   Loaded: loaded (/lib/systemd/system/isc-dhcp-server.service; enabled; vendor preset: enabled)
   Active: failed (Result: exit-code) since Thu 2024-09-19 12:01:40 UTC; 16s ago
     Docs: man:dhcpd(8)
   Process: 1471 ExecStart=/bin/sh -ec CONFIG_FILE=/etc/dhcp/dhcpd.conf; if [ -f /etc/lt
 Main PID: 1471 (code=exited, status=1/FAILURE)
    CPU: 5ms

sep 19 12:01:40 zeus sh[1471]: bugs on either our web page at www.isc.org or in the README file
sep 19 12:01:40 zeus dhcpd[1471]: before submitting a bug. These pages explain the proper
sep 19 12:01:40 zeus sh[1471]: before submitting a bug. These pages explain the proper
sep 19 12:01:40 zeus dhcpd[1471]: process and the information we find helpful for debugging.
sep 19 12:01:40 zeus sh[1471]: process and the information we find helpful for debugging.
sep 19 12:01:40 zeus dhcpd[1471]:
sep 19 12:01:40 zeus dhcpd[1471]: exiting.
sep 19 12:01:40 zeus sh[1471]: exiting.
sep 19 12:01:40 zeus systemd[1]: isc-dhcp-server.service: Main process exited, code=exited, status=
sep 19 12:01:40 zeus systemd[1]: isc-dhcp-server.service: Failed with result 'exit-code'.
lines 1-18/18 (END)
```


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Entrega una captura del resultat de la instrucció anterior.

```

Sep 19 11:52:33 ubuntuuser dhcpcd[1332]: before submitting a bug. These pages explain the proper
Sep 19 11:52:33 ubuntuuser dhcpcd[1332]: process and the information we find helpful for debugging.
Sep 19 11:52:33 ubuntuuser dhcpcd[1332]:
Sep 19 11:52:33 ubuntuuser dhcpcd[1332]: exiting.
Sep 19 12:01:40 ubuntuuser dhcpcd[1471]: Internet Systems Consortium DHCP Server 4.4.1
Sep 19 12:01:40 ubuntuuser sh[1471]: Config file: /etc/dhcp/dhcpcd.conf
Sep 19 12:01:40 ubuntuuser sh[1471]: Database file: /var/lib/dhcp/dhcpcd.leases
Sep 19 12:01:40 ubuntuuser sh[1471]: PID file: /run/dhcp-server/dhcpcd.pid
Sep 19 12:01:40 ubuntuuser dhcpcd[1471]: Copyright 2004-2018 Internet Systems Consortium.
Sep 19 12:01:40 ubuntuuser dhcpcd[1471]: All rights reserved.
Sep 19 12:01:40 ubuntuuser dhcpcd[1471]: For info, please visit https://www.isc.org/software/dhcp/
Sep 19 12:01:40 ubuntuuser dhcpcd[1471]: Config file: /etc/dhcp/dhcpcd.conf
Sep 19 12:01:40 ubuntuuser dhcpcd[1471]: Database file: /var/lib/dhcp/dhcpcd.leases
Sep 19 12:01:40 ubuntuuser dhcpcd[1471]: PID file: /run/dhcp-server/dhcpcd.pid
Sep 19 12:01:40 ubuntuuser dhcpcd[1471]: Wrote 0 leases to leases file.
Sep 19 12:01:40 ubuntuuser dhcpcd[1471]:
Sep 19 12:01:40 ubuntuuser dhcpcd[1471]: No subnet declaration for enp0s8 (172.30.1.1).
Sep 19 12:01:40 ubuntuuser dhcpcd[1471]: ** Ignoring requests on enp0s8. If this is not what
Sep 19 12:01:40 ubuntuuser dhcpcd[1471]: you want, please write a subnet declaration
Sep 19 12:01:40 ubuntuuser dhcpcd[1471]: in your dhcpcd.conf file for the network segment
Sep 19 12:01:40 ubuntuuser sh[1471]: in your dhcpcd.conf file for the network segment
Sep 19 12:01:40 ubuntuuser dhcpcd[1471]: to which interface enp0s8 is attached. **
Sep 19 12:01:40 ubuntuuser dhcpcd[1471]:
Sep 19 12:01:40 ubuntuuser dhcpcd[1471]:
Sep 19 12:01:40 ubuntuuser dhcpcd[1471]: Not configured to listen on any interfaces!
Sep 19 12:01:40 ubuntuuser dhcpcd[1471]:
Sep 19 12:01:40 ubuntuuser dhcpcd[1471]: If you think you have received this message due to a bug r
ather
Sep 19 12:01:40 ubuntuuser dhcpcd[1471]: than a configuration issue please read the section on subm
itting
Sep 19 12:01:40 ubuntuuser dhcpcd[1471]: bugs on either our web page at www.isc.org or in the READM
E file
Sep 19 12:01:40 ubuntuuser dhcpcd[1471]: before submitting a bug. These pages explain the proper
Sep 19 12:01:40 ubuntuuser dhcpcd[1471]: process and the information we find helpful for debugging.
Sep 19 12:01:40 ubuntuuser dhcpcd[1471]:
Sep 19 12:01:40 ubuntuuser dhcpcd[1471]: exiting.
jue sep 19 12:04:19 romeroz@zeus:/etc/dhcp$ _

```

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Entrega una captura de l'arxiu de configuració complet (esborreu tots els comentaris i feu-lo llegible).

```
jue sep 19 12:22:33 romeroz@zeus:/etc/dhcp$ cat dhcpd.conf
option domain-name "example.org";
option domain-name-servers ns1.example.org, ns2.example.org;


default-lease-time 600;
max-lease-time 7200;

ddns-update-style none;

# A slightly different configuration for an internal subnet.
subnet 172.30.1.0 netmask 255.255.255.0 {
    range 172.30.1.100 172.30.1.254;
    option domain-name-servers 172.30.1.1,172.30.1.2;
    option domain-name "romero-alegria.test";
    option subnet-mask 255.255.255.0;
    option routers 172.30.1.1;
    default-lease-time 600;
    max-lease-time 7200;
#}
jue sep 19 12:22:45 romeroz@zeus:/etc/dhcp$
```

Entrega una captura on es mostri la configuració de xarxa de *PC1* (comanda ip a)

```
jue sep 19 12:36:31 romeroz@ubuntuserver:/etc/netplan$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default 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
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:00:27:8e:8c:e1 brd ff:ff:ff:ff:ff:ff
    inet 172.30.1.100/24 metric 100 brd 172.30.1.255 scope global dynamic enp0s3
        valid_lft 3519sec preferred_lft 3519sec
    inet6 fe80::a00:27ff:fe8e:8ce1/64 scope link
        valid_lft forever preferred_lft forever
jue sep 19 12:36:34 romeroz@ubuntuserver:/etc/netplan$
```

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Entrega una captura amb la comanda per demanar una nova IP amb dhclient i a continuació fes ip a

```
jue sep 19 12:41:54 romeroz@ubuntuserver:/$ sudo dhclient -4
jue sep 19 12:42:05 romeroz@ubuntuserver:/$ ip a
```

Entrega una captura de les últimes línies del syslog de Zeus. Hauran d'incloure aquelles que posi DHCPREQUEST i DHCPACK.

```
jue sep 19 12:41:18 romeroz@zeus:/$ sudo tail -f /var/log/syslog
Sep 19 12:38:29 ubuntuserver fwupdmdm[1695]: Downloading...: 69%
Sep 19 12:38:29 ubuntuserver fwupdmdm[1695]: Downloading...: 75%
Sep 19 12:38:29 ubuntuserver fwupdmdm[1695]: Downloading...: 82%
Sep 19 12:38:29 ubuntuserver fwupdmdm[1695]: Downloading...: 90%
Sep 19 12:38:29 ubuntuserver fwupdmdm[1695]: Downloading...: 96%
Sep 19 12:38:29 ubuntuserver fwupdmdm[1695]: Downloading...: 100%
Sep 19 12:38:29 ubuntuserver fwupdmdm[1695]: Idle...: 100%
Sep 19 12:38:29 ubuntuserver fwupdmdm[1695]: Successfully downloaded new metadata: 0 local devices s
upported
Sep 19 12:38:29 ubuntuserver systemd[1]: fwupd-refresh.service: Deactivated successfully.
Sep 19 12:38:29 ubuntuserver systemd[1]: Finished Refresh fwupd metadata and update motd.

Sep 19 12:42:05 ubuntuserver dhcpcd[1676]: DHCPDISCOVER from 08:00:27:8e:8c:e1 via enp0s8
Sep 19 12:42:06 ubuntuserver dhcpcd[1676]: DHCPPOFFER on 172.30.1.101 to 08:00:27:8e:8c:e1 (ubuntuser
ver) via enp0s8
Sep 19 12:42:06 ubuntuserver dhcpcd[1676]: DHCPREQUEST for 172.30.1.101 (172.30.1.1) from 08:00:27:8e
:8c:e1 (ubuntuserver) via enp0s8
Sep 19 12:42:06 ubuntuserver dhcpcd[1676]: DHCPACK on 172.30.1.101 to 08:00:27:8e:8c:e1 (ubuntuserver
) via enp0s8
_
```

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Realitza i entrega una captura del resultat de fer ip a a PC1

```
jue sep 19 12:42:16 romeroz@ubuntuserver:/$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default 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
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:00:27:8e:8c:e1 brd ff:ff:ff:ff:ff:ff
    inet 172.30.1.100/24 metric 100 brd 172.30.1.255 scope global dynamic enp0s3
        valid_lft 3034sec preferred_lft 3034sec
    inet 172.30.1.101/24 brd 172.30.1.255 scope global secondary dynamic enp0s3
        valid_lft 3446sec preferred_lft 3446sec
    inet6 fe80::a00:27ff:fe8e:8ce1/64 scope link
        valid_lft forever preferred_lft forever
jue sep 19 12:44:39 romeroz@ubuntuserver:/$ _
```