

Práctica 3

Requisitos previos:

- Haber completado las prácticas 1 y 2
- Cliente LINUXXX correctamente configurado. Para ello es necesario arrancar la máquina cliente previamente y modificar la configuración de red para que el adaptador que está en la red interna esté en DHCP en lugar de STATIC.
- Cliente WindowsXX correctamente configurado. Para ello es necesario arrancar la máquina cliente previamente y modificar la configuración de red para que el adaptador que está en la red interna esté en DHCP en lugar de STATIC.

Pasos de la práctica:

1. Modificar el archivo de configuración de la Práctica 2 (recuerda haber hecho copia de seguridad previamente) para conseguir que:
 - Se otorgue a la máquina LinuxXX (por ser cliente conocido) una dirección del pool 10.0.128+XX.150 a 10.0.128+XX.159
 - Tiempo máximo de alquiler de direcciones de 90 segundos
 - Tiempo por defecto de alquiler de direcciones de 45 segundos
 - Se otorgue a la máquina WindowsXX (por ser cliente desconocido) una dirección del pool 10.0.128+XX.160 a 10.0.128+XX.169. Cuidado, porque habrá que quitar la dirección reservada de la práctica anterior.
 - Tiempo máximo de alquiler de direcciones de 40 segundos
 - Tiempo por defecto de alquiler de direcciones de 20 segundos

IDENTIFICACIÓN DE CLIENTES CONOCIDOS Y DESCONOCIDOS POR SO

Este método utiliza la Opción 60 de DHCP, conocida como Vendor Class Identifier (VCI). El método se basa en que la mayoría de los sistemas operativos se identifican a sí mismos al solicitar una dirección IP (en el paquete **DHCP DISCOVER**).

- **Cientes Windows (Desconocidos):** Se identifican enviando un VCI (Opción 60) que comienza con el texto **MSFT** (por ejemplo, **MSFT 5.0**).
- **Cientes Linux (Conocidos):** Envían un VCI diferente (como **dhclient...**) o, en muchos casos, no envían esta opción en absoluto.

```
GNU nano 7.2 /etc/kea/kea-dhcp4.conf
    }
],
"client-classes": [
{
    "name": "windows-clientes",
    "test": "option[60].exists and substring(option[60].text, 0, 4) == 'MSFT'",
    "valid-lifetime": 20,
    "max-valid-lifetime": 40
},
{
    "name": "linux-clientes",
    "test": "not (option[60].exists and substring(option[60].text, 0, 4) == 'MSFT')",
    "valid-lifetime": 45,
    "max-valid-lifetime": 90
}
],
"subnet4": [

```

```
BookWorm11A_DHCP [Corriendo] - Oracle VirtualBox
Archivo Máquina Ver Entrada Dispositivos Ayuda
alumno@bookworm11a: ~
Archivo Editar Pestañas Ayuda
GNU nano 7.2 /etc/kea/kea-dhcp4.conf *
"client-classes": [
{
    "name": "windows-clientes",
    "test": "option[60].exists and substring(option[60].text, 0, 4) == 'MSFT'",
    "valid-lifetime": 20,
    "max-valid-lifetime": 40
},
{
    "name": "linux-clientes",
    "test": "not (option[60].exists and substring(option[60].text, 0, 4) == 'MSFT')",
    "valid-lifetime": 45,
    "max-valid-lifetime": 90
}
],
"subnet4": [
{
    "subnet": "10.0.139.0/24",
    "pools": [
        {
            "pool": "10.0.139.150 - 10.0.139.159",
            "client-class": "linux-clientes"
        },
        {
            "pool": "10.0.139.160 - 10.0.139.169",
            "client-class": "windows-clientes"
        }
    ],

```

```

BookWorm11A_DHCP [Corriendo] - Oracle VirtualBox
Archivo Máquina Ver Entrada Dispositivos Ayuda
alumno@bookworm11a: ~
Archivo Editar Pestanas Ayuda
alumno@bookworm11a:~$ sudo kea-dhcp4 -t /etc/kea/kea-dhcp4.conf
2025-11-01 18:37:17.717 INFO [kea-dhcp4.hosts/3020.139956236452352] HOSTS_BACKENDS_REGISTERED the following host backend types are available: mysql postgresql
1
2025-11-01 18:37:17.717 INFO [kea-dhcp4.dhcpsrv/3020.139956236452352] DHCP_SRV_CFGMGR_ADD_IFACE listening on interface enp0s8
2025-11-01 18:37:17.720 INFO [kea-dhcp4.dhcpsrv/3020.139956236452352] DHCP_SRV_CFGMGR_SOCKET_TYPE_DEFAULT "dhcp-socket-type" not specified , using default socket type raw
2025-11-01 18:37:17.720 INFO [kea-dhcp4.dhcpsrv/3020.139956236452352] DHCP_SRV_CFGMGR_NEW_SUBNET4 a new subnet has been added to configuration: 10.0.139.0/24
with params: valid-lifetime=7200
alumno@bookworm11a:~$ 

```

```

BookWorm11A_DHCP [Corriendo] - Oracle VirtualBox
Archivo Máquina Ver Entrada Dispositivos Ayuda
alumno@bookworm11a: ~
Archivo Editar Pestanas Ayuda
alumno@bookworm11a:~$ sudo systemctl restart kea-dhcp4-server
alumno@bookworm11a:~$ sudo systemctl status kea-dhcp4-server
● kea-dhcp4-server.service - Kea IPv4 DHCP daemon
   Loaded: loaded (/lib/systemd/system/kea-dhcp4-server.service; enabled; preset: enabled)
     Active: active (running) since Sat 2025-11-01 18:38:12 CET; 1s ago
       Docs: man:kea-dhcp4(8)
   Main PID: 3049 (kea-dhcp4)
     Tasks: 5 (limit: 7180)
    Memory: 2.6M
      CPU: 33ms
     CGroup: /system.slice/kea-dhcp4-server.service
             └─3049 /usr/sbin/kea-dhcp4 -c /etc/kea/kea-dhcp4.conf

nov 01 18:38:12 bookworm11a systemd[1]: Started kea-dhcp4-server.service - Kea IPv4 DHCP daemon.
nov 01 18:38:12 bookworm11a kea-dhcp4[3049]: 2025-11-01 18:38:12.071 INFO [kea-dhcp4.dhcp4/3049.1406805551]
lines 1-13/13 (END)
alumno@bookworm11a:~$ 

```

2. Revisa los logs del servidor y recoge evidencias (registros) sobre el funcionamiento del servidor: concesión de direcciones, renovación, identificación del cliente y tiempo de concesión
3. Recoge evidencias en que se muestre el tiempo por el que se ha concedido la IP a cada uno de los clientes

LINUX11 :

```

BookWorm11A_DHCP [Corriendo] - Oracle VirtualBox
Archivo Máquina Ver Entrada Dispositivos Ayuda
alumno@bookworm11a: ~
Archivo Editar Pestanas Ayuda
alumno@boo... alumno@...
2025-11-01 18:41:29.599 INFO [kea-dhcp4.options/3049.140680555164160] EVAL_EXPRESSION linux-clientes evaluated to 1
2025-11-01 18:41:29.600 INFO [kea-dhcp4.leases/3049.140680555164160] DHCP4_LEASE_ALLOC [hwtype=1 08:00:27:3f:b3:21], cid=[ff:af:81:8f:7d:00:02:00:00:ab:11:94:2f:0e:f1:84:f0:d9:a0], tid=0xebcd2395: lease 10.0.139.150 has been allocated for 45 seconds
2025-11-01 18:41:53.012 INFO [kea-dhcp4.options/3049.140680555164160] EVAL_EXPRESSION linux-clientes evaluated to 1
2025-11-01 18:41:53.012 INFO [kea-dhcp4.leases/3049.140680555164160] DHCP4_LEASE_ALLOC [hwtype=1 08:00:27:3f:b3:21], cid=[ff:af:81:8f:7d:00:02:00:00:ab:11:94:2f:0e:f1:84:f0:d9:a0], tid=0xebcd2395: lease 10.0.139.150 has been allocated for 45 seconds
2025-11-01 18:42:15.891 INFO [kea-dhcp4.options/3049.140680555164160] EVAL_EXPRESSION linux-clientes evaluated to 1
2025-11-01 18:42:15.891 INFO [kea-dhcp4.leases/3049.140680555164160] DHCP4_LEASE_ALLOC [hwtype=1 08:00:27:3f:b3:21], cid=[ff:af:81:8f:7d:00:02:00:00:ab:11:94:2f:0e:f1:84:f0:d9:a0], tid=0xebcd2395: lease 10.0.139.150 has been allocated for 45 seconds
2025-11-01 18:42:38.619 INFO [kea-dhcp4.options/3049.140680555164160] EVAL_EXPRESSION linux-clientes evaluated to 1
2025-11-01 18:42:38.620 INFO [kea-dhcp4.leases/3049.140680555164160] DHCP4_LEASE_ALLOC [hwtype=1 08:00:27:3f:b3:21], cid=[ff:af:81:8f:7d:00:02:00:00:ab:11:94:2f:0e:f1:84:f0:d9:a0], tid=0xebcd2395: lease 10.0.139.150 has been allocated for 45 seconds

```

Capturando desde enp0s8

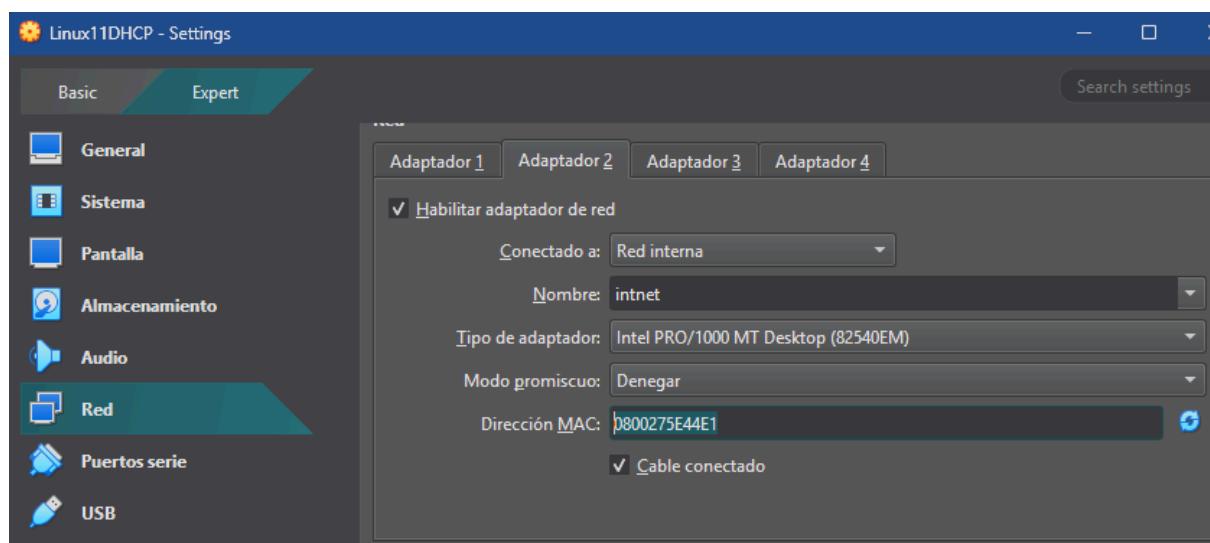
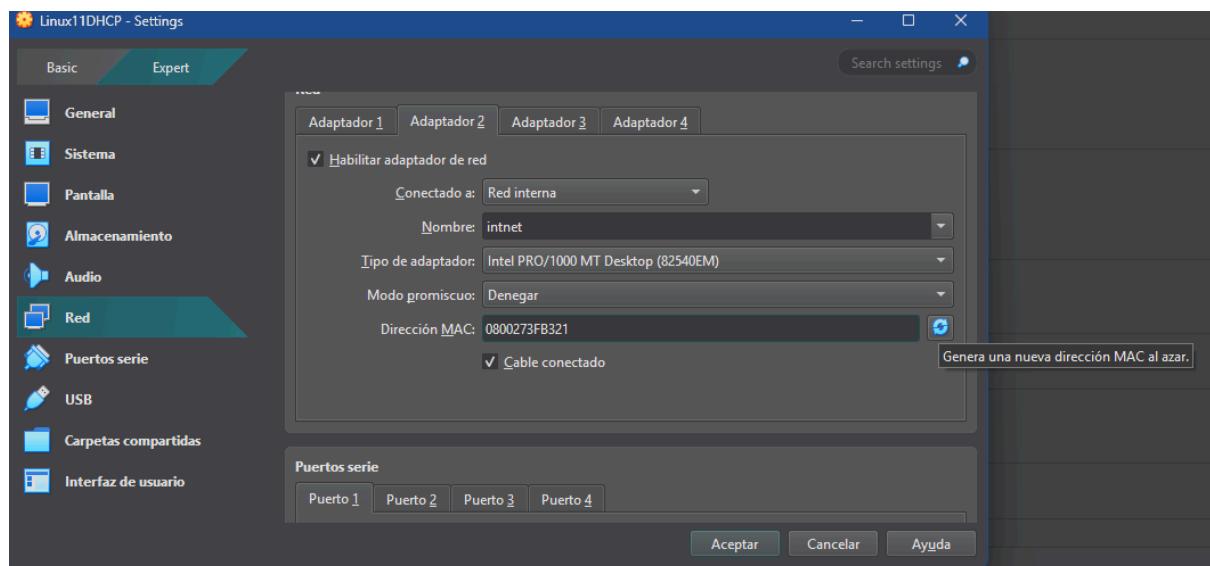
No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000000	255.255.255.255		DHCP	356	DHCP Request - Transaction ID 0xebcd2395
2	0.0666318907	10.0.139.150		DHCP	389	DHCP ACK - Transaction ID 0xebcd2395
3	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
4	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
5	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
6	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
7	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
8	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
9	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
10	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
11	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
12	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
13	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
14	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
15	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
16	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
17	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
18	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
19	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
20	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
21	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
22	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
23	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
24	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
25	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
26	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
27	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
28	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
29	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
30	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
31	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
32	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
33	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
34	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
35	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
36	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
37	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
38	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
39	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
40	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
41	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
42	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
43	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
44	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
45	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
46	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
47	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
48	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
49	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
50	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
51	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
52	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
53	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
54	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
55	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
56	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
57	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
58	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
59	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
60	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
61	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
62	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
63	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
64	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
65	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
66	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
67	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
68	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
69	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
70	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
71	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
72	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
73	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
74	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
75	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
76	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
77	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
78	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
79	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
80	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
81	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
82	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
83	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
84	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
85	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
86	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
87	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
88	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
89	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
90	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
91	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
92	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
93	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
94	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
95	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
96	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
97	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
98	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
99	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
100	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
101	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
102	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
103	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
104	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
105	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
106	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
107	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
108	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd2395
109	0.0666789007	10.0.139.150		DHCP	344	DHCP Request - Transaction ID 0xebcd23

```

Linux11DHCP [Corriendo] - Oracle VirtualBox
Archivo Máquina Ver Entrada Dispositivos Ayuda
Archivo Acciones Editar Vista Ayuda
linux11@linux11-virtualbox:~ %
linux11@linux11-virtualbox:~$ 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 noprefixroute
            valid_lft forever preferred_lft forever
2: enp0s8: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:00:27:f3:b3:21 brd ff:ff:ff:ff:ff:ff
        inet 10.0.139.150/24 metric 1024 brd 10.0.139.255 scope global dynamic enp0s8
            valid_lft 33sec preferred_lft 33sec
        inet6 fe80::a00:27ff:fe3f:b321/64 scope link
            valid_lft forever preferred_lft forever
linux11@linux11-virtualbox:~%

```

CAMBIANDO DE MAC EN EL LINUX PARA SIMULAR OTRA MAQUINA:



The screenshot shows a Linux terminal window titled "Linux11DHCP [Corriendo] - Oracle VirtualBox". The window has a menu bar with "Archivo", "Máquina", "Ver", "Entrada", "Dispositivos", and "Ayuda". Below the menu is a toolbar with icons for "Nuevo", "Abrir", "Guardar", "Imprimir", "Copiar", "Cortar", "Pegar", "Borrar", "Recortar", "Ajustar", and "Ayuda". The main area of the terminal displays the command "ip a" and its output, which lists two network interfaces: "lo" (loopback) and "enp0s8" (ethernet). The "lo" interface has an IPv4 address of 127.0.0.1/8. The "enp0s8" interface has an IPv4 address of 10.0.139.150/24 and a MAC address of 08:00:27:5e:44:e1.

```
linux11@linux11-virtualbox:~$ 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 noprefixroute
        valid_lft forever preferred_lft forever
2: enp0s8: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:00:27:5e:44:e1 brd ff:ff:ff:ff:ff:ff
    inet 10.0.139.150/24 metric 1024 brd 10.0.139.255 scope global dynamic enp0s8
        valid_lft 29sec preferred_lft 29sec
    inet6 fe80::a00:27ff:fe5e:44e1/64 scope link
        valid_lft forever preferred_lft forever
linux11@linux11-virtualbox:~$
```

The figure shows two terminal windows side-by-side. The left window is titled 'alumno@bookworm11a: ~' and displays a log of DHCP lease requests from a host with MAC address 08:00:27:5e:44:e1. The right window is titled 'Capturando desde enp0s8' and shows a packet capture interface with several captured frames, including a DHCP offer and request exchange.

WINDOWS11 CLIENTE:

NOTA: Durante todo el proceso de la práctica deberán hacerse capturas de imagen de cada uno de los pasos dados así como capturas y almacenaje de los paquetes de wireshark. Algunos de ellos serán solicitados por el profesor una vez concluida la práctica. Para poder realizar esta práctica es necesario haber realizado las prácticas 1 y 2