

Conexión de un cliente GNU/Linux a Internet utilizando una conexión compartida a Internet de Windows (ICS, Internet Connection Sharing)

Información: <https://industry40.systems/soluciones5>

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ISOP403_ICS-Win-Linux.pptx

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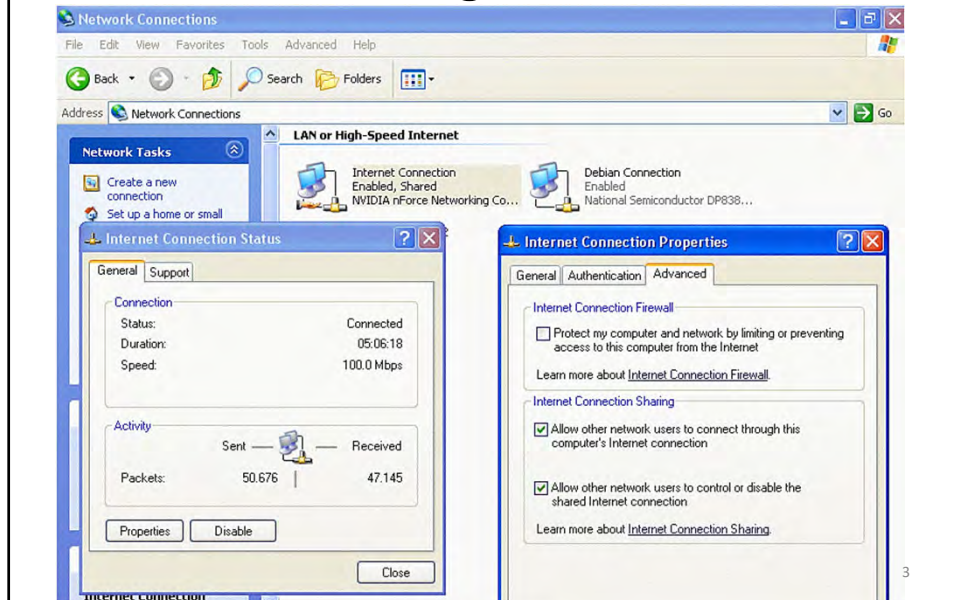
Configuración inicial

- Partimos de un sistema Windows con dos interfaces de red
 - La primera está conectada a Internet y llevará activado ICS con DHCP activado
 - La segunda conectada a la red de área local
 - Debes comprobar que Windows tiene acceso a Internet

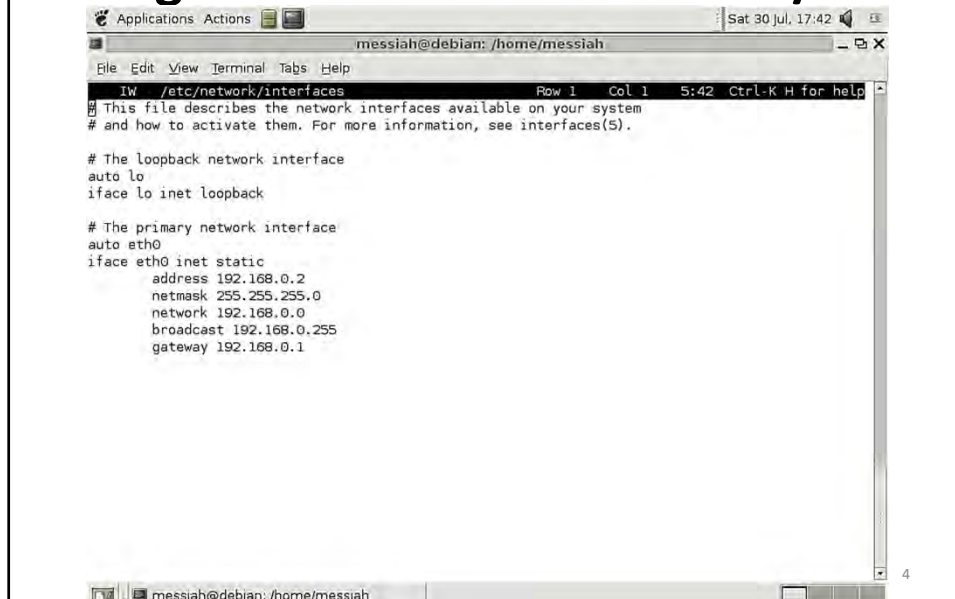


2

Configuración del ICS de Windows en la segunda NIC



Configuración de la red en GNU/Linux



Configuramos los resolvers de nombres en /etc/resolv.conf



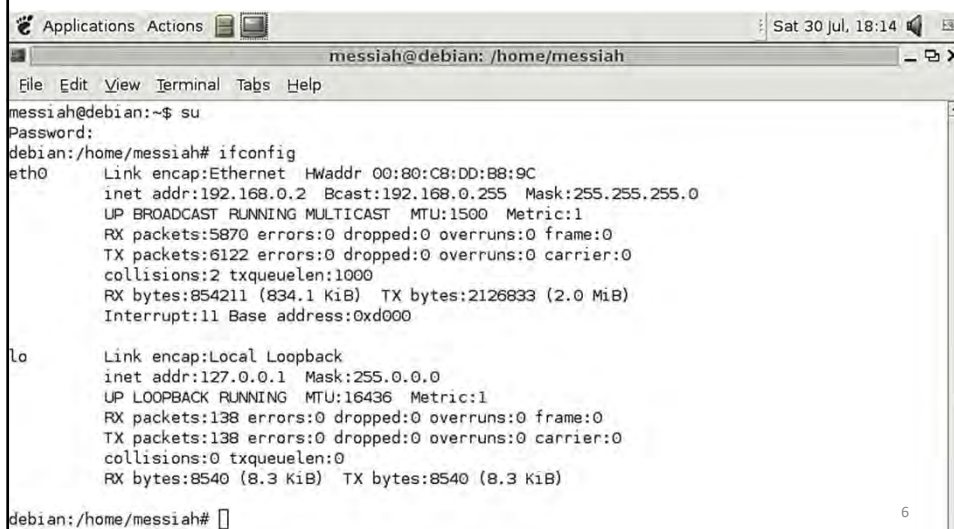
The screenshot shows a terminal window titled 'messiah@debian: /home/messiah'. The terminal displays the contents of the file /etc/resolv.conf, which has been modified. The file contains the following lines:

```
#search telenet.be
#nameserver 195.130.130.129
#nameserver 192.168.123.254
nameserver 192.168.0.1
```

The terminal status bar at the bottom indicates 'Row 4 Col 23 5:43 Ctr'.

5

Reiniciamos la red y comprobamos



The screenshot shows a terminal window titled 'messiah@debian: /home/messiah'. The user has executed the command 'su' to become root, followed by 'ifconfig' to display network interface information. The output shows the configuration for the 'eth0' and 'lo' interfaces.

```
messiah@debian:~$ su
Password:
debian:/home/messiah# ifconfig
eth0      Link encap:Ethernet  HWaddr 00:80:C8:DD:B8:9C
          inet addr:192.168.0.2  Bcast:192.168.0.255  Mask:255.255.255.0
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:5870 errors:0 dropped:0 overruns:0 frame:0
          TX packets:6122 errors:0 dropped:0 overruns:0 carrier:0
          collisions:2 txqueuelen:1000
          RX bytes:854211 (834.1 KiB)  TX bytes:2126833 (2.0 MiB)
          Interrupt:11 Base address:0xd000

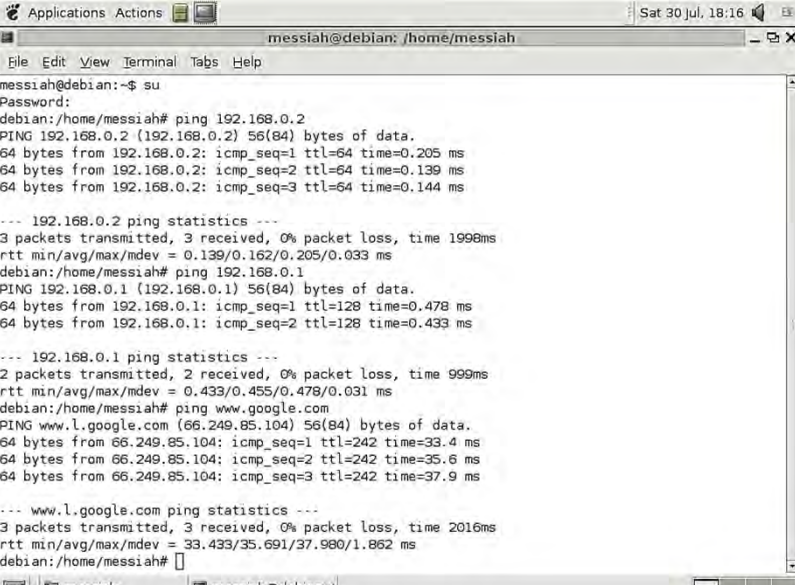
lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          UP LOOPBACK RUNNING  MTU:16436  Metric:1
          RX packets:138 errors:0 dropped:0 overruns:0 frame:0
          TX packets:138 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:8540 (8.3 KiB)  TX bytes:8540 (8.3 KiB)

debian:/home/messiah#
```

The terminal status bar at the bottom indicates 'Sat 30 Jul, 18:14'.

6

Hacemos ping



The screenshot shows a terminal window titled 'messiah@debian: /home/messiah'. The user has executed the following commands and received the following output:

```
messiah@debian:~$ su
Password:
debian:/home/messiah# ping 192.168.0.2
PING 192.168.0.2 (192.168.0.2) 56(84) bytes of data.
64 bytes from 192.168.0.2: icmp_seq=1 ttl=64 time=0.205 ms
64 bytes from 192.168.0.2: icmp_seq=2 ttl=64 time=0.139 ms
64 bytes from 192.168.0.2: icmp_seq=3 ttl=64 time=0.144 ms

--- 192.168.0.2 ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 199ms
rtt min/avg/max/mdev = 0.139/0.162/0.205/0.033 ms
debian:/home/messiah# ping 192.168.0.1
PING 192.168.0.1 (192.168.0.1) 56(84) bytes of data.
64 bytes from 192.168.0.1: icmp_seq=1 ttl=128 time=0.478 ms
64 bytes from 192.168.0.1: icmp_seq=2 ttl=128 time=0.433 ms

--- 192.168.0.1 ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 999ms
rtt min/avg/max/mdev = 0.433/0.455/0.478/0.031 ms
debian:/home/messiah# ping www.google.com
PING www.l.google.com (66.249.85.104) 56(84) bytes of data.
64 bytes from 66.249.85.104: icmp_seq=1 ttl=242 time=33.4 ms
64 bytes from 66.249.85.104: icmp_seq=2 ttl=242 time=35.6 ms
64 bytes from 66.249.85.104: icmp_seq=3 ttl=242 time=37.9 ms

--- www.l.google.com ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2016ms
rtt min/avg/max/mdev = 33.433/35.691/37.980/1.862 ms
debian:/home/messiah#
```

Para entregar

- Una vez finalizada la práctica deberás entregar:
 - El informe de práctica con los detalles de ejecución según la plantilla de prácticas
 - Las pantallas más significativas que demuestren la ejecución
- Nomenclatura identificativa de práctica:
 - **ISOP403_ICS-Win-Linux**