

Configuracion servidor DHCP

Appliance usado



Appliance ▾

Networkers' Toolkit

Posted by Jeremy Grossmann • April 5, 2018 at 6:31 UTC

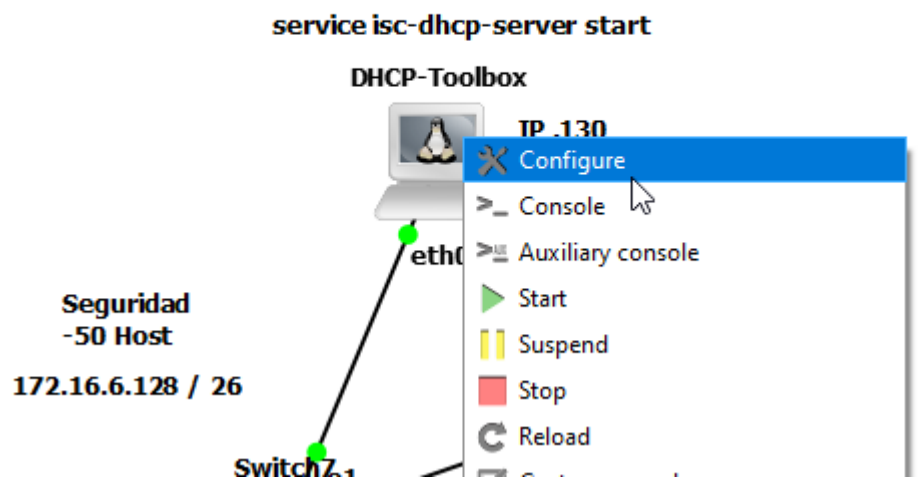
El appliance tiene un isc-dhcp server (Por si necesitan buscar mas información)

<https://gns3.com/marketplace/appliances/networkers-toolkit>

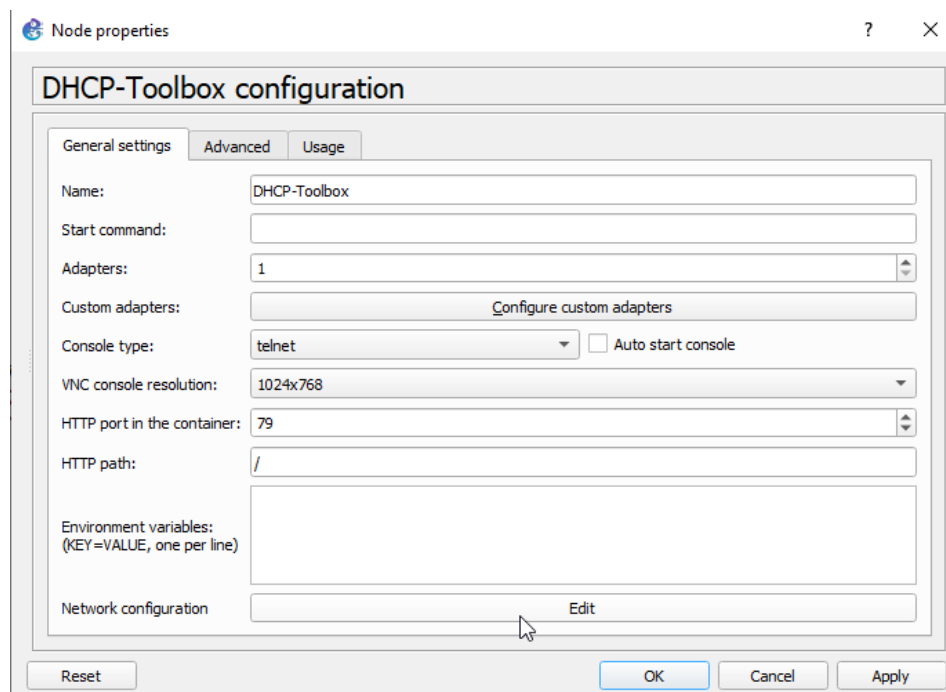
Configuracion inicial

1. Agregarlo a la topologia

*Antes de iniciarlo



Editar las configuraciones de red



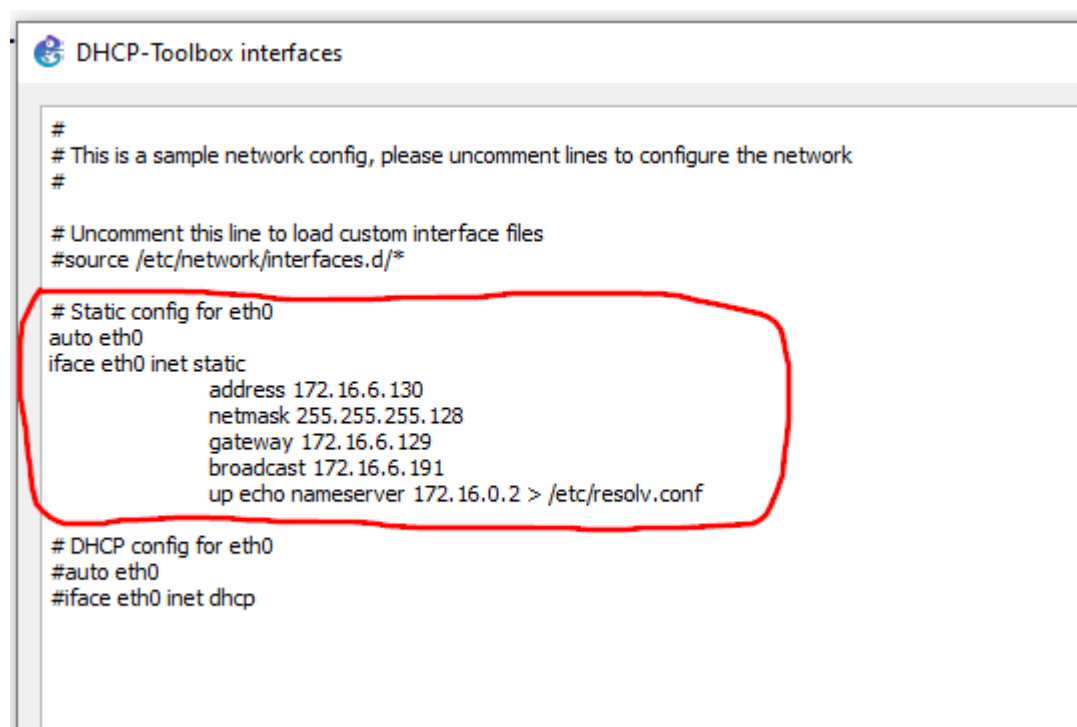
The screenshot shows the 'Node properties' window with the 'DHCP-Toolbox configuration' tab selected. The 'General settings' sub-tab is active. The configuration fields are as follows:

- Name: DHCP-Toolbox
- Start command: (empty)
- Adapters: 1
- Custom adapters: (empty) with a 'Configure custom adapters' button
- Console type: telnet (dropdown menu)
- Auto start console: (unchecked checkbox)
- VNC console resolution: 1024x768 (dropdown menu)
- HTTP port in the container: 79 (dropdown menu)
- HTTP path: /
- Environment variables: (empty text area with placeholder '(KEY=VALUE, one per line)')
- Network configuration: (empty text area with an 'Edit' button)

At the bottom of the window are buttons for 'Reset', 'OK', 'Cancel', and 'Apply'.

Editar el archiv, descomentar las líneas y colocar lo datos de ip, netmask, gw y broadcast. (Según su red).

Esto se hace para configurar el servidor con la dirección estática



The screenshot shows the 'DHCP-Toolbox interfaces' window. It displays a network configuration file with several lines of code. A red circle highlights the static configuration for the eth0 interface.

```
#  
# This is a sample network config, please uncomment lines to configure the network  
#  
# Uncomment this line to load custom interface files  
#source /etc/network/interfaces.d/*  
  
# Static config for eth0  
auto eth0  
iface eth0 inet static  
    address 172.16.6.130  
    netmask 255.255.255.128  
    gateway 172.16.6.129  
    broadcast 172.16.6.191  
    up echo nameserver 172.16.0.2 > /etc/resolv.conf  
  
# DHCP config for eth0  
#auto eth0  
#iface eth0 inet dhcp
```

Después iniciar la maquina y comprobar que se tiene la dirección ip configurada

```
root@DHCP-Toolbox:~# ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 172.16.6.130 netmask 255.255.255.128 broadcast 172.16.6.191
    inet6 fe80::8049:50ff:fece:adc3 prefixlen 64 scopeid 0x20<link>
    ether 82:49:50:ce:ad:c3 txqueuelen 1000 (Ethernet)
    RX packets 35 bytes 13232 (13.2 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 45 bytes 14874 (14.8 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 2 bytes 172 (172.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 2 bytes 172 (172.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

root@DHCP-Toolbox:~#
```

Modificar el archivo

/etc/default/isc-dhcp-server

En interfaces colocar la interfaz que están usando, seguro es igual eth0

```
GNU nano 4.8 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="eth0"
INTERFACESv6="eth0"
```

Guardan los cambios

Después se modifica el archivo

/etc/dhcp/dhcpd.conf

Descomentar la línea:

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

Y agregar las líneas para crear el rango de direcciones que serán asignando a los clientes

```
#HQ - LAN1
subnet 172.16.0.0 netmask 255.255.254.0 {
    range 172.16.0.5 172.16.1.254;
    option routers 172.16.0.1;
    option subnet-mask 255.255.254.0;
    default-lease-time 600;
    max-lease-time 7200;
    option broadcast-address 176.16.1.255;
}

# TI - ADMINISTRACION
subnet 172.16.6.0 netmask 255.255.255.128 {
    range 172.16.6.10 172.16.6.126;
    option subnet-mask 255.255.255.128;
    option routers 172.16.6.1;
    option broadcast-address 172.16.6.127;
}

#TI - SEGURIDAD
subnet 172.16.6.128 netmask 255.255.255.192 {
    range 172.16.6.140 172.16.6.190;
    option subnet-mask 255.255.255.192;
    option routers 172.16.6.129;
    option broadcast-address 172.16.6.191;
```

* Se debe crear una por cada subred

Se guardan los cambios

Finalmente se inicia el servicio de DHCP con el comando

#service isc-dhcp-server start

```
root@DHCP-Toolbox:~# service isc-dhcp-server start
Launching IPv4 server only.
* Starting ISC DHCPv4 server dhcpd
Launching IPv6 server only.
* Starting ISC DHCPv6 server dhcpd6
* check syslog for diagnostics.

root@DHCP-Toolbox:~#
```

Les debe quedar algo así

Probar con un cliente dhcp en la misma lan

Colocar una pc en la misma lan y ejecutar

```
PC6> ip dhcp
DORA IP 172.16.6.140/26 GW 172.16.6.129

PC6> show ip

NAME       : PC6[1]
IP/MASK    : 172.16.6.140/26
GATEWAY    : 172.16.6.129
DNS        :
DHCP SERVER : 172.16.6.130
DHCP LEASE  : 595, 600/300/525
DOMAIN NAME : 8.8.8.8
MAC        : 00:50:79:66:68:05
LPORT      : 20094
RHOST:PORT  : 127.0.0.1:20095
MTU        : 1500
```

A veces hay que ejecutarlo 2 veces. Pero ya debería tener asignada una ip del pool de direcciones

Configuración del servidor DHCP en otras Lan's

Se tiene que configurar en el router, por lo cual comprobar que el router alcanza el servidor DHCP, haciendo un ping o lo que sea

```
HQ#ping 172.16.6.128

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 172.16.6.128, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/1/1 ms
HQ#
```

Ya que se alcanza el servidor

Configurar cada interfaz, en mi caso FastEthernet, donde tienen una subred configurada con

`ip helper-address <dirección IP del servidor>`

```
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/1/1 ms
HQ#config
HQ#configure t
Enter configuration commands, one per line. End with CNTL/Z.
HQ(config)#interface f 0/1
HQ(config-if)#ip help
HQ(config-if)#ip helper-address 172.16.6.130
HQ(config-if)#
```

Guardar los cambios

Realizar la misma prueba de conectar una pc a esa subred y ejecutar `ip dhcp`.