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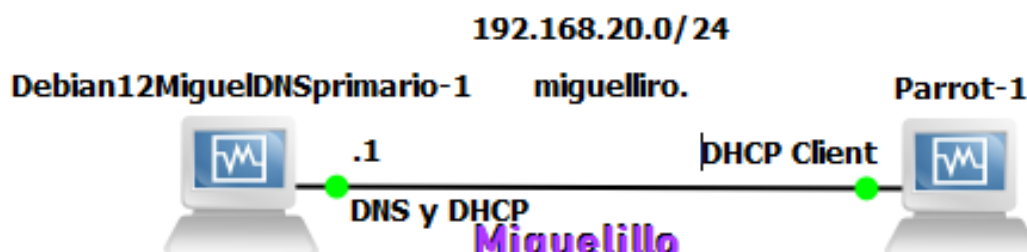
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Ejercicio 1

a) Actualizaciones DNS Dinámicas IPv4 en GNU/Linux (Servidor DHCP yDNS).

Solución:

Escenario:



Configuramos el update para que se actualice cuando les dé dhcp a los clientes

```

Debian12MiguelDNSPrimario (Maestro esclavo funcional y subdominio) [Corriendo] - O...
Archivo  Máquina  Ver  Entrada  Dispositivos  Ayuda
Actividades  Terminal  23 de nov 09:52  99 %
miguel@debian-SRI: ~
GNU nano 7.2  /etc/bind/named.conf.local
zone "miguelliro" {
    type master;
    file "/etc/bind/db.directa";
    allow-query { any; };
    also-notify { 192.168.20.2; };
    allow-transfer { 192.168.20.2; };
    journal "act.miguelliro";
    allow-update { 192.168.20.1; };
    notify yes;
};

zone "20.168.192.in-addr.arpa" {
    type master;
    file "/etc/bind/db.inversa";
    allow-query { any; };
    also-notify { 192.168.20.2; };
    allow-transfer { 192.168.20.2; };
    journal "act.192";
    allow-update { 192.168.20.1; };
    notify yes;
};

^G Ayuda  ^O Guardar  ^W Buscar  ^K Cortar  ^T Ejecutar
^X Salir  ^R Leer fich.  ^Y Reemplazar  ^U Pegar  ^J Justificar
Miguelillo
BLOQ MAYUS

```

Configuramos el servicio DHCP

```

GNU nano 7.2 /etc/dhcp/dhcpd.conf *
#option domain-name-servers ns1.example.org, ns2.example.org;
#default-lease-time 600;
#max-lease-time 7200;
# have support for DDNS.)
subnet 192.168.20.0 netmask 255.255.255.0 {
    range 192.168.20.50 192.168.20.100;
    # option subnet-mask 255.255.255.0;
    option domain-name-servers 192.168.20.1;
    default-lease-time 600;
    max-lease-time 7200;
}

zone miguelliro {
    primary 192.168.20.1;
}

zone 20.168.192.in-addr.arpa {
    primary 192.168.20.1;
}
Miguelillo

```

Configuramos el cliente por DHCP y probamos el DNS

No.	Time	Source	Destination	Protocol	Length	Info
12...	7930.256...	0.0.0.0	255.255.255.2...	DHCP	342	DHCP Request - Transaction ID 0xc9f2d751
12...	7930.266...	192.168.20.1	192.168.20.50	DHCP	342	DHCP ACK - Transaction ID 0xc9f2d751
12...	7930.279...	PcsCompu_17:9...	Broadcast	ARP	60	Who has 192.168.20.2? Tell 192.168.20.1
12...	7930.303...	192.168.20.50	224.0.0.22	IGMP...	54	Membership Report / Join group 224.0.0.251 for any sources
12...	7930.387...	192.168.20.50	224.0.0.22	IGMP...	54	Membership Report / Join group 224.0.0.251 for any sources
12...	7930.398...	192.168.20.50	224.0.0.251	MDNS	160	Standard query 0x0000 PTR _nfs._tcp.local, "QM" question PTR _ftp._tcp.local, "QM" question PTR _webdav._
12...	7930.408...	192.168.20.50	224.0.0.251	MDNS	134	Standard query 0x0000 ANY 50.20.168.192.in-addr.arpa, "QM" question ANY parrot.local, "QM" question A 192.
12...	7930.662...	192.168.20.50	224.0.0.251	MDNS	134	Standard query 0x0000 ANY 50.20.168.192.in-addr.arpa, "QM" question ANY parrot.local, "QM" question A 192.
12...	7930.913...	192.168.20.50	224.0.0.251	MDNS	134	Standard query 0x0000 ANY 50.20.168.192.in-addr.arpa, "QM" question ANY parrot.local, "QM" question A 192.
12...	7931.113...	192.168.20.50	224.0.0.251	MDNS	122	Standard query response 0x0000 PTR, cache flush parrot.local A, cache flush 192.168.20.50
12...	7931.292...	PcsCompu_17:9...	Broadcast	ARP	60	Who has 192.168.20.2? Tell 192.168.20.1
12...	7931.406...	192.168.20.50	224.0.0.251	MDNS	160	Standard query 0x0000 PTR _nfs._tcp.local, "QM" question PTR _ftp._tcp.local, "QM" question PTR _webdav._
12...	7932.197...	192.168.20.50	224.0.0.251	MDNS	122	Standard query response 0x0000 PTR, cache flush parrot.local A, cache flush 192.168.20.50
12...	7932.316...	PcsCompu_17:9...	Broadcast	ARP	60	Who has 192.168.20.2? Tell 192.168.20.1
12...	7933.407...	192.168.20.50	224.0.0.251	MDNS	160	Standard query 0x0000 PTR _nfs._tcp.local, "QM" question PTR _ftp._tcp.local, "QM" question PTR _webdav._
12...	7933.508...	PcsCompu_d9:c...	Broadcast	ARP	42	Who has 192.168.20.1? Tell 192.168.20.50
12...	7933.509...	192.168.20.50	192.168.20.1	DNS	77	Standard query 0x36da A debian.miguelliro
12...	7933.510...	192.168.20.1	192.168.20.50	DNS	93	Standard query response 0x36da A debian.miguelliro A 192.168.20.1

Client ID address: 0.0.0.0

Your (client) IP address: 192.168.20.50

Next server IP address: 0.0.0.0

Relay agent IP address: 0.0.0.0

Client MAC address: PcsCompu_d9:c0:93 (08:00:27:d9:c0:93)

Client hardware address padding: 00000000000000000000

Server host name not given

Boot file name not given

Magic cookie: DHCP

- Option: (53) DHCP Message Type (ACK)
- Option: (54) DHCP Server Identifier (192.168.20.1)
- Option: (51) IP Address Lease Time
- Option: (1) Subnet Mask (255.255.0)
- Option: (6) Domain Name Server

Domain Name Server: 192.168.20.1

Option 6: Domain Name Server (dhcp.option.domain_name_server), 4 bytes

Packets: 12168 · Displayed: 12168 (100.0%)

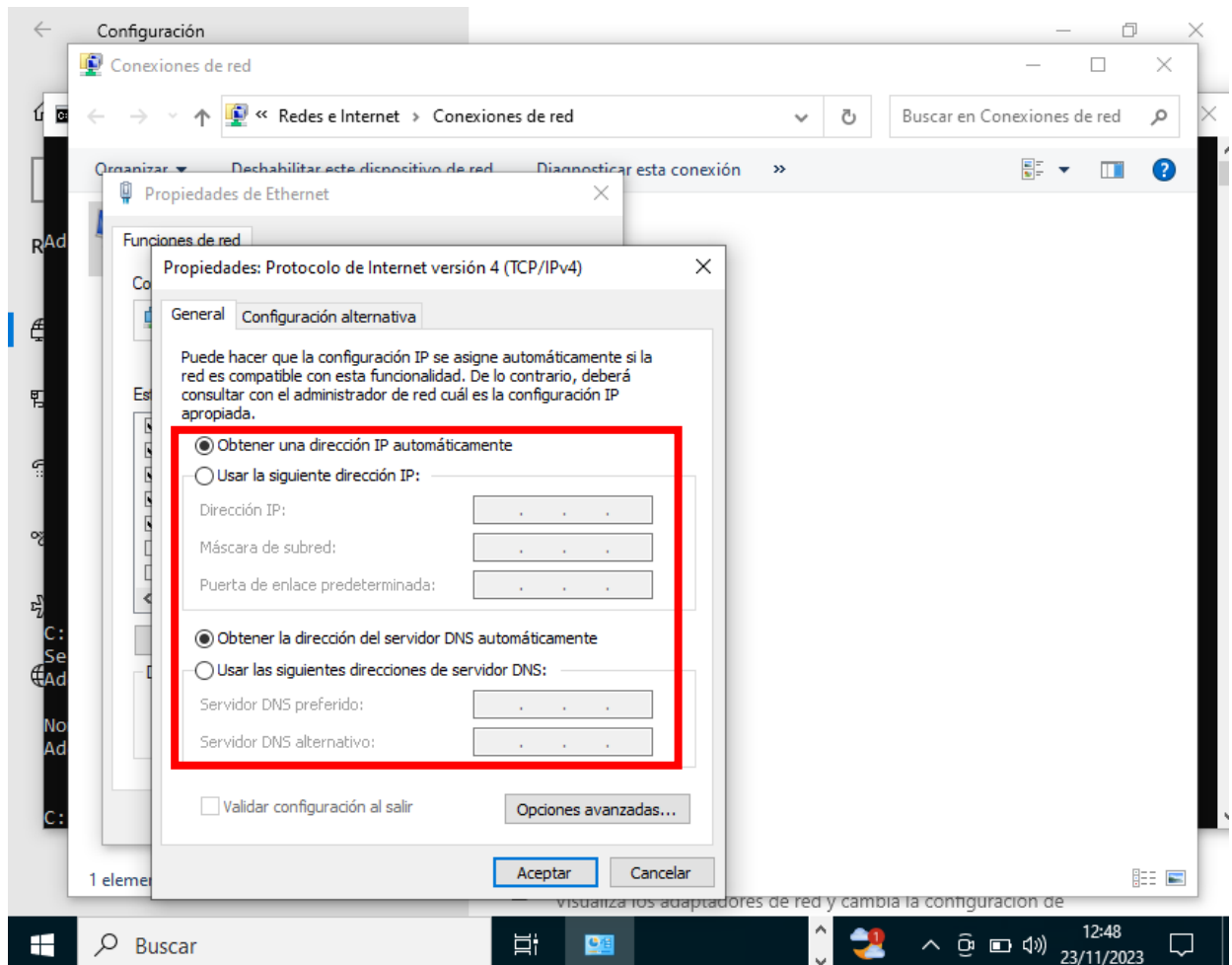
La prueba en el cliente

```

[~] $ sudo dhclient
[sudo] password for miguel:
[~] $ sudo dhclient
[sudo] password for miguel:
[~] $ sudo dhclient
[~] $ 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:127.0.0.1
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host ::1
        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:d9:c0:93 brd ff:ff:ff:ff:ff:ff
    inet 192.168.20.50/24 brd 192.168.20.255 scope global dynamic enp0s3
        valid_lft 597sec preferred_lft 597sec
[~] $ nslookup 192.168.20.1
Server: 192.168.20.1
Address: 192.168.20.1#53
Name: debian.miguelliro.
Address: 192.168.20.1
[~] $ nslookup debian.miguelliro.
Server: 192.168.20.1
Address: 192.168.20.1#53
Name: debian.miguelliro.
Address: 192.168.20.1

```

Configuradme el DNS dinámico y la ip dinámica



Prueba en cliente windows

