PRACTICA DNS

Primero actualizamos el sistema e instalamos y habilitamos BIND en el servidor:

```
victor@server1:~$ sudo apt update && sudo apt upgrade -y
[sudo] password for victor:
Obj:1 http://es.archive.ubuntu.com/ubuntu noble InRelease
Des:2 http://es.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Obj:3 http://es.archive.ubuntu.com/ubuntu noble-backports InRelease
Obj:4 http://security.ubuntu.com/ubuntu noble-security InRelease
Ign:5 http://download.webmin.com/download/repository sarge InRelease
Obj:6 http://download.webmin.com/download/repository sarge Release
Descargados 126 kB en 7s (18,3 kB/s)
Leyendo lista de paquetes... Hecho
Creando árbol de dependencias... Hecho
Leyendo la información de estado... Hecho
Todos los paquetes están actualizados.
W: http://download.webmin.com/download/repository/dists/sarge/Release.gpg: Key is store
in apt-key(8) for details.
W: http://download.webmin.com/download/repository/dists/sarge/Release.gpg: Signature by
Leyendo lista de paquetes... Hecho
Creando árbol de dependencias... Hecho
Leyendo la información de estado... Hecho
Calculando la actualización... Hecho
0 actualizados, 0 nuevos se instalarán, 0 para eliminar y 0 no actualizados.
victor@server1:~$ sudo apt install bind9 -y
Leyendo lista de paquetes... Hecho
Creando árbol de dependencias... Hecho
Leyendo la información de estado... Hecho
Se instalarán los siguientes paquetes adicionales:
  bind9-utils
Paquetes sugeridos:
  bind-doc
Se instalarán los siguientes paquetes NUEVOS:
```

```
victor@server1:~$ sudo systemctl start bind9
victor@server1:~$ sudo systemctl status bind9
● named.service - BIND Domain Name Server
     Loaded: loaded (/usr/lib/systemd/system/named.service; enabled; preset: enabled)
     Active: active (running) since Fri 2024-12-06 20:08:29 UTC; 1min 25s ago
       Docs: man:named(8)
   Main PID: 3624 (named)
     Status: "running"
      Tasks: 11 (limit: 4606)
     Memory: 7.9M (peak: 8.4M)
        CPU: 23ms
     CGroup: /system.slice/named.service
             └─3624 /usr/sbin/named -f -u bind

dic 06 20:08:29 server1 named[3624]: network unreachable resolving './DNSKEY/IN': 2001:500:12::d0d#53
dic 06 20:08:29 server1 named[3624]: network unreachable resolving './NS/IN': 2001:500:12::d0d#53
dic 06 20:08:29 server1 named[3624]: network unreachable resolving './DNSKEY/IN': 2001:503:ba3e::2:30#53
dic 06 20:08:29 server1 named[3624]: network unreachable resolving './NS/IN': 2001:503:ba3e::2:30#53
dic 06 20:08:29 server1 named[3624]: network unreachable resolving './DNSKEY/IN': 2801:1b8:10::b#53
dic 06 20:08:29 server1 named[3624]: network unreachable resolving './NS/IN': 2801:1b8:10::b#53
dic 06 20:08:29 server1 named[3624]: network unreachable resolving './DNSKEY/IN': 2001:7fe::53#53
dic 06 20:08:29 server1 named[3624]: network unreachable resolving './NS/IN': 2001:7fe::53#53
dic 06 20:08:29 server1 named[3624]: managed-keys-zone: Initializing automatic trust anchor management f
dic 06 20:08:29 server1 named[3624]: resolver priming query complete: success
...skipping...
● named.service - BIND Domain Name Server
     Loaded: loaded (/usr/lib/systemd/system/named.service; enabled; preset: enabled)
     Active: active (running) since Fri 2024-12-06 20:08:29 UTC; 1min 25s ago
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     CGroup: /system.slice/named.service
             └─3624 /usr/sbin/named -f -u bind
```

Editamos el archivo de configuración de bind para añadir la zona:

```
  GNU nano 7.2                                                  /etc/bind/named.conf.local *
//
// Do any local configuration here
//

// Consider adding the 1918 zones here, if they are not used in your
// organization
//include "/etc/bind/zones.rfc1918";

zone "asirxest.org" {
type master;
file "/etc/bind/db.asirxest.org";
};
```

Y ahora editamos el archivo de zona db.asirxest.org:

```
$TTL 86400
@ IN SOA asterix.asirxest.org. admin.asirxest.org. (
        2023102801 ; Serial
        604800  ; Refresh
        86400   ; Retry
        2419200 ; Expire
        604800 ); Negative Cache TTL
; Servidor de nombres
        IN      NS      asterix.asirxest.org.
; Registros A para los hosts
asterix IN      A       192.168.100.2
obelix IN       A       192.168.100.150
panoramix IN    A       192.168.100.1
; Alias (CNAME) para servicios
www     IN      CNAME   asterix
ftp     IN      CNAME   asterix
mail    IN      CNAME   asterix
dns     IN      CNAME   asterix
```

```
victor@server1:~$ sudo named-checkzone asirxest.org /etc/bind/db.asirxest.org
zone asirxest.org/IN: loaded serial 2023102801
OK
victor@server1:~$ sudo named-checkconf
victor@server1:~$ sudo systemctl restart bind9
victor@server1:~$
```

Configuramos los DNS externos y habilitamos la escucha:

```
options {
        directory "/var/cache/bind";

        // If there is a firewall between you and nameservers you want
        // to talk to, you may need to fix the firewall to allow multiple
        // ports to talk.  See http://www.kb.cert.org/vuls/id/800113

        // If your ISP provided one or more IP addresses for stable
        // nameservers, you probably want to use them as forwarders.
        // Uncomment the following block, and insert the addresses replacing
        // the all-0's placeholder.

         forwarders {
                8.8.8.8;
                4.4.4.4;
         };


        //========================================================================
        // If BIND logs error messages about the root key being expired,
        // you will need to update your keys.  See https://www.isc.org/bind-keys
        //========================================================================
        dnssec-validation auto;

        listen-on-v6 { any; };
        listen-on { 127.0.0.1; 192.168.100.2; };
        allow-query { localhost; 192.168.100.0/24; }

};
```

Ahora configuramos el servicio DHCP:

```
#  pool {
#    deny members of "foo";
#    range 10.0.29.10 10.0.29.230;
#  }
#}
subnet 192.168.100.0 netmask 255.255.255.0 {
        range 192.168.100.10 192.168.100.100;
        option domain-name "asirxest.org";
        option domain-name-servers 192.168.100.2;
        option routers 192.168.100.1;
}
host obelix {
        hardware ethernet 08:00:27:ED:1E:F9; # Reemplaza con la MAC de obelix
        fixed-address 192.168.100.150;
}
```

Y probamos en el cliente que le pusimos IP fija: