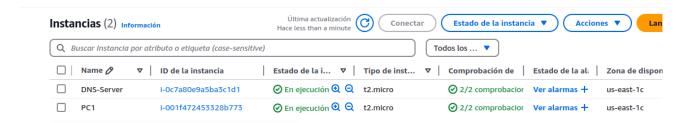Oscar Pereira – DAW 7K

DNS con Bind

Creamos un par de maquinas que serviran como servidor DNS y usuario respectivamente.

Despues accedemos a la maquina servidor e instalaremos bind9.

Creamos copias de seguridad de los archivos named por si algo va mal.

```
// If your ISP provided one or more IP addres
// nameservers, you probably want to use them
// Uncomment the following block, and insert
// the all-0's placeholder.

   forwarders {
         8.8.8.8;8.8.4.4;
   };


//===============================================
```

Ahora modificamos el archivo local con nuestros datos.

```
Archivo   Editar   Ver   Marcadores   Complementos   Preferencias   Ayuda
  GNU nano 7.2                              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 "oscar.abastos.edu"{
        type master;
        file "/etc/bind/db.oscar.abastos";
};
```

```
>              (ubuntu) ec2-54-234-243-248.compute-1.amazonaws.com — Konsole        ∨

 Archivo   Editar   Ver   Marcadores   Complementos   Preferencias   Ayuda
   GNU nano 7.2                              db.oscar.abastos
;
; BIND data file for local loopback interface
;
$TTL    604800
@       IN      SOA     oscar.abastos.edu. admin@oscar.abastos.edu. (
                            2          ; Serial
                       604800          ; Refresh
                        86400          ; Retry
                      2419200          ; Expire
                       604800 )        ; Negative Cache TTL
;
@       IN      NS      ns1.oscar.abastos.edu.
ns1     IN      A       172.31.95.47
pc1     IN      A       172.31.94.218
pc2     IN      A       172.31.43.41




                            [ Read 15 lines ]
^G Help         ^O Write Out   ^W Where Is    ^K Cut         ^T Execute     ^C Location
^X Exit         ^R Read File   ^\ Replace     ^U Paste       ^J Justify     ^/ Go To Line
```

```
Archivo   Editar   Ver   Marcadores   Complementos   Preferencias   Ayuda
ubuntu@ip-172-31-95-47:/etc/bind$ named-checkzone oscar.abastos.edu. db.oscar.abastos
zone oscar.abastos.edu/IN: loaded serial 2
OK
ubuntu@ip-172-31-95-47:/etc/bind$
```
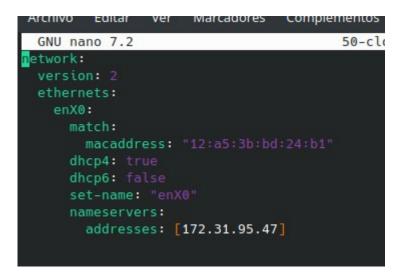
Hacemos restart al servicio named y comprobamos su funcionamiento.

```
ubuntu@ip-172-31-95-47:/etc/bind$ nslookup
> server 127.0.0.1
Default server: 127.0.0.1
Address: 127.0.0.1#53
> pc1.oscar.abastos.edu
Server:          127.0.0.1
Address:          127.0.0.1#53

Name:   pc1.oscar.abastos.edu
Address: 172.31.94.218
>
```

```
> set type=soa
> oscar.abastos.edu
Server:          127.0.0.1
Address:          127.0.0.1#53

oscar.abastos.edu
        origin = oscar.abastos.edu
        mail addr = admin\@oscar.abastos.edu
        serial = 2
        refresh = 604800
        retry = 86400
        expire = 2419200
        minimum = 604800
>
```
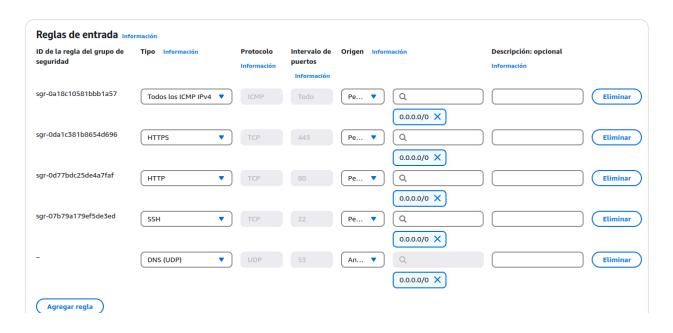
Ahora entramos a PC1 y comprobamos nuestro resolver.

```
                        (ubuntu) ec2-54-175-236-161.compute-1.amazonaws.com — Konsole

Archivo   Editar   Ver   Marcadores   Complementos   Preferencias   Ayuda
ubuntu@ip-172-31-94-218:~$ resolvectl
Global
        Protocols: -LLMNR -mDNS -DNSOverTLS DNSSEC=no/unsupported
  resolv.conf mode: stub

Link 2 (enX0)
    Current Scopes: DNS
        Protocols: +DefaultRoute -LLMNR -mDNS -DNSOverTLS DNSSEC=no/unsupported
Current DNS Server: 172.31.0.2
       DNS Servers: 172.31.0.2
        DNS Domain: ec2.internal
ubuntu@ip-172-31-94-218:~$
```

Modificamos el grupo de seguridad para que permita entrada por DNS(UDP).

```
ubuntu@ip-172-31-94-218:/etc$ sudo netplan apply
ubuntu@ip-172-31-94-218:/etc$ resolvectl
Global
         Protocols: -LLMNR -mDNS -DNSOverTLS DNSSEC=no/unsupported
   resolv.conf mode: stub

Link 2 (enX0)
    Current Scopes: DNS
         Protocols: +DefaultRoute -LLMNR -mDNS -DNSOverTLS DNSSEC=no/unsupported
       DNS Servers: 172.31.95.47 172.31.0.2
        DNS Domain: ec2.internal
ubuntu@ip-172-31-94-218:/etc$ ping ns1.oscar.abastos.edu
PING ns1.oscar.abastos.edu (172.31.95.47) 56(84) bytes of data.
64 bytes from 172.31.95.47: icmp_seq=1 ttl=64 time=0.308 ms
64 bytes from 172.31.95.47: icmp_seq=2 ttl=64 time=1.69 ms
64 bytes from 172.31.95.47: icmp_seq=3 ttl=64 time=0.506 ms
64 bytes from 172.31.95.47: icmp_seq=4 ttl=64 time=0.641 ms
```

Ahora añadimos un alias a las maquinas modificando el db de nuestro servidor.

```
Archivo   Editar   Ver   Marcadores   Complementos   Preferencias   Ayuda
  GNU nano 7.2                          db.oscar.abastos
$TTL    604800
@        IN       SOA     oscar.abastos.edu. admin@oscar.abastos.edu. (
                              2          ; Serial
                         604800          ; Refresh
                          86400          ; Retry
                        2419200          ; Expire
                         604800 )        ; Negative Cache TTL
;
@        IN       NS      ns1.oscar.abastos.edu.
@        IN       MX      10        correo.oscar.abastos.edu.
ns1      IN       A       172.31.95.47
www      IN       CNAME   ns1
pc1      IN       A       172.31.94.218
pc2      IN       A       172.31.43.41
correo.oscar.abastos.edu.          IN        A        172.31.95.47


^G Help            ^O Write Out    ^W Where Is    ^K Cut        ^T Execute    ^C Location
^X Exit            ^R Read File    ^\ Replace     ^U Paste      ^J Justify    ^/ Go To Line
```

```
  >            (ubuntu) ec2-54-234-243-248.compute-1.amazonaws.com — Konsole        ∨

 Archivo   Editar   Ver   Marcadores   Complementos   Preferencias   Ayuda
 ubuntu@ip-172-31-95-47:/etc/bind$ sudo nano db.oscar.abastos
 ubuntu@ip-172-31-95-47:/etc/bind$ sudo nano db.oscar.abastos
 ubuntu@ip-172-31-95-47:/etc/bind$ named-checkzone oscar.abastos.edu db.oscar.abastos
 zone oscar.abastos.edu/IN: loaded serial 2
 OK
 ubuntu@ip-172-31-95-47:/etc/bind$ sudo systemctl restart named
 ubuntu@ip-172-31-95-47:/etc/bind$
```

Guardamos y reiniciamos el servicio.

Ahora desde PC1 hacemos ping a los nuevos registros.

```
Archivo   Editar   Ver   Marcadores   Complementos   Preferencias   Ayuda
ubuntu@ip-172-31-94-218:/etc$ ping www.oscar.abastos.edu
PING ns1.oscar.abastos.edu (172.31.95.47) 56(84) bytes of data.
64 bytes from 172.31.95.47: icmp_seq=1 ttl=64 time=0.394 ms
64 bytes from 172.31.95.47: icmp_seq=2 ttl=64 time=0.508 ms
^C
--- ns1.oscar.abastos.edu ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1053ms
rtt min/avg/max/mdev = 0.394/0.451/0.508/0.057 ms
ubuntu@ip-172-31-94-218:/etc$ ping correo.oscar.abastos.edu
PING correo.oscar.abastos.edu (172.31.95.47) 56(84) bytes of data.
64 bytes from 172.31.95.47: icmp_seq=1 ttl=64 time=0.579 ms
64 bytes from 172.31.95.47: icmp_seq=2 ttl=64 time=0.754 ms
^C
--- correo.oscar.abastos.edu ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1002ms
rtt min/avg/max/mdev = 0.579/0.666/0.754/0.087 ms
ubuntu@ip-172-31-94-218:/etc$ █
```

Y podemos verificar que funcionan correctamente.