

## DNS 4: CONFIGURACIONES INVERSAS

En primer lugar, declaro las zonas, como puede verse en la siguiente imagen.

```

GNU nano 4.8                                named.conf.local
zone "iespoligonosur.org" {
    type master;
    file "/etc/bind/db.iespsur";
};

zone "a100.iespoligonosur.org" {
    type master;
    file "/etc/bind/db.a100.iespsur.es";
};

zone "a101.iespoligonosur.org" {
    type master;
    file "/etc/bind/db.a101.iespsur.es";
};

zone "10.10.10.in-addr.arpa" {
    type master;
    file "/etc/bind/db.10";
};

zone "100.168.192.in-addr.arpa" {
    type master;
    file "/etc/bind/db.100arpa";
};

zone "101.168.192.in-addr.arpa" {
    type master;
    file "/etc/bind/db.101arpa";
};

^G Get Help      ^O Write Out    ^W Where Is     ^K Cut Text     ^J Justify      ^C Cur Pos      M-U Undo
^X Exit          ^R Read File    ^N Replace      ^U Paste Text   ^T To Spell     ^_ Go To Line    M-E Redo

```

Copio los archivos para agilizar la tarea y edito cada archivo de su respectiva zona del siguiente modo:

```

GNU nano 4.8                                db.10
;
; BIND data file for local loopback interface
;
$TTL      604800
@         IN      SOA      dns1.iespoligonosur.org. info.iespsur.es. (
                        2      ; Serial
                        604800 ; Refresh
                        86400  ; Retry
                        2419200 ; Expire
                        604800 ) ; Negative Cache TTL
;
@         IN      NS       dns1.iespoligonosur.org.
2.10.10.10.in-addr.arpa. IN  PTR    www.iespoligonosur.org.
4.10.10.10.in-addr.arpa. IN  PTR    dns2.iespoligonosur.org.
;@         IN      AAAA     ::1

```

Reiniciamos y comprobamos el estado de cada zona, comprobamos que las zonas están cargadas.

```
.iespoligonosur.org)
Oct 18 08:02:35 usuario named[629]: zone a101.iespoligonosur.org/IN: loaded serial 2
Oct 18 08:02:35 usuario named[629]: zone 255.in-addr.arpa/IN: loaded serial 1
Oct 18 08:02:35 usuario named[629]: /etc/bind/db.a100.iespsur.es:13: ignoring out-of-zone data (dns
.iespoligonosur.org)
Oct 18 08:02:35 usuario named[629]: zone a100.iespoligonosur.org/IN: loaded serial 2
Oct 18 08:02:35 usuario named[629]: zone 100.168.192.in-addr.arpa/IN: loaded serial 2
Oct 18 08:02:35 usuario named[629]: zone 101.168.192.in-addr.arpa/IN: loaded serial 2
Oct 18 08:02:35 usuario named[629]: zone localhost/IN: loaded serial 2
Oct 18 08:02:35 usuario named[629]: all zones loaded
Oct 18 08:02:35 usuario named[629]: zone a100.iespoligonosur.org/IN: sending notifies (serial 2)
Oct 18 08:02:35 usuario named[629]: zone 100.168.192.in-addr.arpa/IN: sending notifies (serial 2)
Oct 18 08:02:35 usuario named[629]: zone 101.168.192.in-addr.arpa/IN: sending notifies (serial 2)
Oct 18 08:02:35 usuario named[629]: zone a101.iespoligonosur.org/IN: sending notifies (serial 2)
Oct 18 08:02:36 usuario named[629]: managed-keys-zone: Unable to fetch DNSKEY set '.': failure
usuario@usuario:~$ _
```

Y, por último, comprobamos que la conexión se establece mediante dig.

```
usuario@usuario:/etc/bind$ dig @10.10.10.3 -x 192.168.101.4

; <>> DiG 9.16.1-Ubuntu <>> @10.10.10.3 -x 192.168.101.4
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 4868
;; flags: qr aa rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 4096
; COOKIE: 6602e4fbb491c43d01000000634e5d3a4e3a751a610b8ead (good)
;; QUESTION SECTION:
;4.101.168.192.in-addr.arpa.      IN      PTR

;; ANSWER SECTION:
4.101.168.192.in-addr.arpa. 604800 IN      PTR      pc02.a100.iespoligonosur.org.

;; Query time: 0 msec
;; SERVER: 10.10.10.3#53(10.10.10.3)
;; WHEN: mar oct 18 08:00:58 UTC 2022
;; MSG SIZE rcvd: 125

usuario@usuario:/etc/bind$
```

Ahora he modificado las zonas, y he creado una sola zona para las dos 192.168.

```
GNU nano 4.8 named.conf.local
zone "iespoligonosur.org" {
    type master;
    file "/etc/bind/db.iespsur";
};

zone "a100.iespoligonosur.org" {
    type master;
    file "/etc/bind/db.a100.iespsur.es";
};

zone "a101.iespoligonosur.org" {
    type master;
    file "/etc/bind/db.a101.iespsur.es";
};

zone "10.10.10.in-addr.arpa" {
    type master;
    file "/etc/bind/db.10";
};

zone "168.192.in-addr.arpa" {
    type master;
    file "/etc/bind/db.168arpa";
};

#zone "101.168.192.in-addr.arpa" {
#    type master;
#    file "/etc/bind/db.101arpa";
#};
```

Unificamos en el archivo de la zona todo lo que antes teníamos para la 192.168.100 y la 101.

```
GNU nano 4.8 db.168arpa
;
; BIND data file for local loopback interface
;
$TTL 604800
@ IN SOA dns1.iespoligonosur.org. info.iespsur.es. (
    2 ; Serial
    604800 ; Refresh
    86400 ; Retry
    2419200 ; Expire
    604800 ) ; Negative Cache TTL
;
@ IN NS dns1.iespoligonosur.org.
@ IN NS dns2.iespoligonosur.org.

2.100.168.192.in-addr.arpa. IN PTR profe.a100.iespoligonosur.org.
3.100.168.192.in-addr.arpa. IN PTR pc01.a100.iespoligonosur.org.
4.100.168.192.in-addr.arpa. IN PTR pc02.a100.iespoligonosur.org.
2.101.168.192.in-addr.arpa. IN PTR profe.a101.iespoligonosur.org.
3.101.168.192.in-addr.arpa. IN PTR pc01.a101.iespoligonosur.org.
4.101.168.192.in-addr.arpa. IN PTR pc02.a101.iespoligonosur.org.
```

Volvemos a reiniciar y verificar el estado de bind, comprobamos que la zona esta cargada.

```
Oct 18 08:19:26 usuario named[1221]: automatic empty zone: HOME.ARPA
Oct 18 08:19:26 usuario named[1221]: managed-keys-zone: loaded serial 42
Oct 18 08:19:26 usuario named[1221]: zone 0.in-addr.arpa/IN: loaded serial 1
Oct 18 08:19:26 usuario named[1221]: zone 10.10.10.in-addr.arpa/IN: loaded serial 2
Oct 18 08:19:26 usuario named[1221]: zone 127.in-addr.arpa/IN: loaded serial 1
Oct 18 08:19:26 usuario named[1221]: zone iespoligonosur.org/IN: NS 'dns1.iespoligonosur.org' has no
address records (A or AAAA)
Oct 18 08:19:26 usuario named[1221]: zone iespoligonosur.org/IN: not loaded due to errors.
Oct 18 08:19:26 usuario named[1221]: zone 168.192.in-addr.arpa/IN: loaded serial 2
Oct 18 08:19:26 usuario named[1221]: zone 255.in-addr.arpa/IN: loaded serial 1
Oct 18 08:19:26 usuario named[1221]: zone localhost/IN: loaded serial 2
Oct 18 08:19:26 usuario named[1221]: /etc/bind/db.a100.iespsur.es:13: ignoring out-of-zone data (dns
1.iespoligonosur.org)
Oct 18 08:19:26 usuario named[1221]: zone a100.iespoligonosur.org/IN: loaded serial 2
Oct 18 08:19:26 usuario named[1221]: /etc/bind/db.a101.iespsur.es:14: ignoring out-of-zone data (dns
1.iespoligonosur.org)
Oct 18 08:19:26 usuario named[1221]: zone a101.iespoligonosur.org/IN: loaded serial 2
Oct 18 08:19:26 usuario named[1221]: all zones loaded
Oct 18 08:19:26 usuario named[1221]: zone a100.iespoligonosur.org/IN: sending notifies (serial 2)
Oct 18 08:19:26 usuario named[1221]: zone 168.192.in-addr.arpa/IN: sending notifies (serial 2)
Oct 18 08:19:26 usuario named[1221]: zone a101.iespoligonosur.org/IN: sending notifies (serial 2)
Oct 18 08:19:26 usuario named[1221]: managed-keys-zone: Unable to fetch DNSKEY set '.': failure
usuario@usuario:/etc/bind$ _
```

Y si hago dig, me establecerá la respuesta:

```
Oct 18 08:19:51 usuario named[1221]: Receiver: priming query complete
usuario@usuario:/etc/bind$ dig @10.10.10.3 -x 192.168.100.3

; <<>> DiG 9.16.1-Ubuntu <<>> @10.10.10.3 -x 192.168.100.3
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 57515
;; flags: qr aa rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 4096
; COOKIE: bf32a739fde2580301000000634e61a68ec2ad03a639fbba (good)
;; QUESTION SECTION:
;3.100.168.192.in-addr.arpa. IN PTR

;; ANSWER SECTION:
3.100.168.192.in-addr.arpa. 604800 IN PTR pc01.a100.iespoligonosur.org.

;; Query time: 0 msec
;; SERVER: 10.10.10.3#53(10.10.10.3)
;; WHEN: mar oct 18 08:19:51 UTC 2022
;; MSG SIZE rcvd: 125
```