

Installation Bind9 et configuration DNS (debian)

Installation de bind9

```
# apt update
# apt install bind9 dnsutils resolvconf
```

dnsutils va installer les outils pour tester la configuration bind (named-checkzone, named-checkconf)
resolvconf va permettre d'utiliser les fonctions réseaux dans interfaces pour mettre à jour le resolv.conf

On définit le hostname avec la valeur ns

```
# echo "ns" > /etc/hostname
```

Configuration de la carte réseau interne **/etc/network/interfaces**

```
allow-hotplug enp0s8
auto enp0s8
iface enp0s8 inet static
address 192.168.0.10
netmask 255.255.255.0
network 192.168.0.0
broadcast 192.168.0.255
dns-domain btssio.corp
```

On redémarre les cartes réseau

```
# /etc/init.d/networking restart
```

Pour éviter que notre serveur ne serve de relais DNS

```
# nano /etc/bind/named.conf.options
```

On ajoute

```
allow-recursion { 127.0.0.1; };
```

On modifie pour rediriger les requêtes "inconnues" de notre domaine

```
forwarders {
    8.8.8.8;
};
```

Configuration de la zone DNS btssio.corp

```
# nano /etc/bind/named.conf.local
```

```
// Zone de résolution de domaine
```

```
zone "btssio.corp" {
    type master;
    file "/etc/bind/zones/master/db.btssio.corp";
```

```
// allow-transfer {192.168.0.xxx; }; // autorise le transfert vers un dns secondaire
```

```

notify yes; //Notification des serveurs secondaires en cas de modification de la zone
};

// Zone de résolution inverse

zone "0.168.192.in-addr.arpa" {
    type master;
    file "/etc/bind/zones/master/0.168.192.in-addr.arpa";
    // allow-transfer {192.168.0.xxx; }; // autorise le transfert vers un dns secondaire
    notify no;
};

```

configuration du fichier de zone

```
# nano /etc/bind/zones/master/db.btssio.corp
```

```

$ttl 1H
@      IN      SOA      ns.btssio.corp. root@btssio.corp. (
                                2022011101 ; Serial
                                1H ; Refresh
                                15M ; Retry
                                1W ; Expire
                                3M ; Minimum TTL
                                )
@ IN      NS       ns.btssio.corp.

ns      IN      A      192.168.0.10
www     IN      CNAME   ns

```

Configuration du fichier de zone inverse

```
# nano db.0.168.192.in-addr.arpa
```

```

$TTL 604800
0.168.192.in-addr.arpa. IN SOA ns.btssio.corp. root.btssio.corp. (
                                2022011101 ; Serial
                                3h ; Refresh after 3 hours
                                1h ; Retry after 1 hour
                                1w ; Expire after 1 week
                                1h ) ; Negative caching TTL of 1 day
;
0.168.192.in-addr.arpa. IN NS ns.btssio.corp.

10.0.168.192.in-addr.arpa. IN PTR ns.btssio.corp.

```

On teste la configuration

```
# named-checkconf
```

On teste la zone

```
# named-checkzone btssio.corp /etc/bind/zones/master/db.btssio.corp
```

Résultat :

```
zone btssio.corp/IN: loaded serial 2022011101
OK
```

On teste la zone inverse

```
# named-checkzone 0.168.192.in-addr.arpa /etc/bind/zones/master/db.0.168.192.in-addr.arpa
```

Résultat :

```
zone 0.168.192.in-addr.arpa/IN: loaded serial 2022011101
OK
```

on redémarre bind

```
# systemctl restart bind9
```

on vérifie que c'est bien démarré sans erreur

```
# systemctl status bind9
```

```
● named.service - BIND Domain Name Server
   Loaded: loaded (/lib/systemd/system/named.service; enabled; vendor preset: enabled)
   Active: active (running) since Tue 2022-01-11 09:45:52 CET; 2s ago
     Docs: man:named(8)
    Main PID: 2688 (named)
      Tasks: 4 (limit: 2341)
     Memory: 14.2M
        CPU: 25ms
    CGroup: /system.slice/named.service
            └─2688 /usr/sbin/named -f -u bind

janv. 11 09:45:52 debian named[2688]: network unreachable resolving './NS/IN': 2001:7fd::1#53
janv. 11 09:45:52 debian named[2688]: zone localhost/IN: loaded serial 2
janv. 11 09:45:52 debian named[2688]: zone 255.in-addr.arpa/IN: loaded serial 1
janv. 11 09:45:52 debian named[2688]: zone 0.168.192.in-addr.arpa/IN: loaded serial 2022011101
janv. 11 09:45:52 debian named[2688]: zone 127.in-addr.arpa/IN: loaded serial 1
janv. 11 09:45:52 debian named[2688]: zone btssio.corp/IN: loaded serial 2022011101
janv. 11 09:45:52 debian named[2688]: all zones loaded
janv. 11 09:45:52 debian named[2688]: running
janv. 11 09:45:52 debian named[2688]: managed-keys-zone: Key 20326 for zone . is now trusted (acceptance timer complete)
janv. 11 09:45:52 debian named[2688]: resolver priming query complete
```

on teste la résolution ip (idéalement d'une autre machine)

```
# dig @192.168.0.10 www.btssio.corp
```

```
; <<>> DiG 9.16.22-Debian <<>> @192.168.0.10 www.btssio.corp
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 46394
;; flags: qr aa rd; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1
;; WARNING: recursion requested but not available

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:;; udp: 1232
; COOKIE: bec2b45ac87344cb0100000061dd44d23d16d0b9e18a5e82 (good)
;; QUESTION SECTION:
;www.btssio.corp.                IN      A

;; ANSWER SECTION:
www.btssio.corp.                3600    IN      CNAME   ns.btssio.corp.
ns.btssio.corp.                 3600    IN      A       192.168.0.10

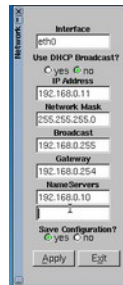
;; Query time: 0 msec
;; SERVER: 192.168.0.10#53(192.168.0.10)
;; WHEN: Tue Jan 11 09:50:26 CET 2022
;; MSG SIZE rcvd: 105
```

On teste la résolution inverse (idéalement d'une autre machine)

```
dig @192.168.0.10 -x 192.168.0.10
```

on teste un ping depuis une machine dans le même réseau (tinycore par exemple)

Configuration réseau (tinycore)



Tests de ping avec résolution de nom

