

```
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 {
    //     0.0.0.0;
    // };

    //=====
    // 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; };

    allow-query { localhost; LAN; };

    forwarders { 1.1.1.1; };
recursion yes;
};

acl LAN {
10.0.2.0/24;
```

```

elbog@Elbog-Computer:~$ sudo nano /etc/bind/named.conf.options
elbog@Elbog-Computer:~$ named-checkconf /etc/bind/named.conf.options
elbog@Elbog-Computer:~$ named -V
BIND 9.18.18-0ubuntu0.22.04.2-Ubuntu (Extended Support Version) <id:>
running on Linux x86_64 5.15.0-94-generic #104-Ubuntu SMP Tue Jan 9 15:25:40 UTC 2024
built by make with '--build=x86_64-linux-gnu' '--prefix=/usr' '--includedir=${prefix}/include' '--mandir=${pr
ble-silent-rules' '--libdir=${prefix}/lib/x86_64-linux-gnu' '--runstatedir=/run' '--disable-maintainer-mode' '
tedir=' '--enable-threads' '--enable-largefile' '--with-libtool' '--enable-shared' '--disable-static' '--with
maxminddb' '--with-atf=no' '--enable-ipv6' '--enable-rrl' '--enable-filter-aaaa' '--disable-native-pkcs11' 'bu
lto=auto -ffat-lto-objects -fstack-protector-strong -Wformat -Werror=format-security -fno-strict-aliasing -fno
to=auto -Wl,-z,relro -Wl,-z,now' 'CPPFLAGS=-Wdate-time -D_FORTIFY_SOURCE=2'
compiled by GCC 11.4.0
compiled with OpenSSL version: OpenSSL 3.0.2 15 Mar 2022
linked to OpenSSL version: OpenSSL 3.0.2 15 Mar 2022
compiled with libuv version: 1.43.0
linked to libuv version: 1.43.0
compiled with libnghttp2 version: 1.43.0
linked to libnghttp2 version: 1.43.0
compiled with libxml2 version: 2.9.13
linked to libxml2 version: 20913
compiled with json-c version: 0.15
linked to json-c version: 0.15
compiled with zlib version: 1.2.11
linked to zlib version: 1.2.11
linked to maxminddb version: 1.5.2
threads support is enabled
DNSSEC algorithms: RSASHA1 NSEC3RSASHA1 RSASHA256 RSASHA512 ECDsap256SHA256 ECDsap384SHA384 ED25519 ED448
DS algorithms: SHA-1 SHA-256 SHA-384
HMAC algorithms: HMAC-MD5 HMAC-SHA1 HMAC-SHA224 HMAC-SHA256 HMAC-SHA384 HMAC-SHA512
TKEY mode 2 support (Diffie-Hellman): yes
TKEY mode 3 support (GSS-API): yes

default paths:
  named configuration: /etc/bind/named.conf
  rndc configuration: /etc/bind/rndc.conf
  DNSSEC root key: /etc/bind/bind.keys
  nsupdate session key: //run/named/session.key
  named PID file: //run/named/named.pid
  named lock file: //run/named/named.lock
  geoip-directory: /usr/share/GeoIP
elbog@Elbog-Computer:~$ ss -ltn | grep named
elbog@Elbog-Computer:~$ ufw allow in from 10.0.2.0/24 to any port 53
ERROR: You need to be root to run this script
elbog@Elbog-Computer:~$ sudo ufw allow in from 10.0.2.0/24 to any port 53
[sudo] password for elbog:
Rule added
elbog@Elbog-Computer:~$ sudo ufw allow in from 192.168.1.100/24 to any port 53
WARN: Rule changed after normalization
Rule added
elbog@Elbog-Computer:~$ systemctl restart named
elbog@Elbog-Computer:~$ systemctl enable named
Synchronizing state of named.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable named
elbog@Elbog-Computer:~$

```



```
elbog@Elbog-Computer: ~
File Edit View Search Terminal Help
GNU nano 6.2 /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 "esprit.tn" IN {
    type master;
    file "/etc/bind/zones/esprit.tn";
};
zone "2.0.10.in-addr.arpa" IN {
    type master;
    file "/etc/bind/zones/esprit.tn.rev";
};
```

```
elbog@Elbog-Computer: ~
File Edit View Search Terminal Help
GNU nano 6.2 /etc/bind/zones/esprit.tn *
;
; BIND data file for local loopback interface
;
$TTL 604800
; SOA record with MNAME and RNAME updated
@ IN SOA esprit.tn. root.esprit.tn. (
    3 ; Serial
    604800 ; Refresh
    86400 ; Retry
    2419200 ; Expire
    604800 ) ; Negative Cache TTL
;Name server esprit.tn
@ IN NS bindserver.esprit.tn.
; A record for name server
bindserver IN A 10.0.2.15
; A record for clients
client1 IN A 10.0.2.16
client2 IN A 10.0.2.17
```

```
elbog@Elbog-Computer: ~
File Edit View Search Terminal Help
GNU nano 6.2 /etc/bind/zones/esprit.tn.rev
;
; BIND reverse data file for local loopback interface
;
$TTL 604800
@ IN SOA esprit.tn. root.esprit.tn. (
    2 ; Serial
    604800 ; Refresh
    86400 ; Retry
    2419200 ; Expire
    604800 ) ; Negative Cache TTL
; Name server record
@ IN NS bindserver.esprit.tn.
; PTR record for name server
2 IN PTR bindserver.esprit.tn
; PTR record for clients
3 IN PTR client1.esprit.tn
4 IN PTR client2.esprit.tn
```

```
;www.esprit.tn\@10.0.2.15.      IN      A
;; AUTHORITY SECTION:
.                10800    IN      SOA      a.root-servers.net. nstld.verisign-grs.com. 2024021900 1800 900 604800
86400
;; Query time: 47 msec
;; SERVER: 127.0.0.53#53(127.0.0.53) (UDP)
;; WHEN: Mon Feb 19 13:11:22 CET 2024
;; MSG SIZE rcvd: 127

elbog@Elbog-Computer:~$ sudo dig a www.esprit.tn@10.0.2.15

; <<>> DiG 9.18.18-0ubuntu0.22.04.2-Ubuntu <<>> a www.esprit.tn@10.0.2.15
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NXDOMAIN, id: 51630
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 65494
;; QUESTION SECTION:
;www.esprit.tn\@10.0.2.15.      IN      A

;; AUTHORITY SECTION:
.                10774    IN      SOA      a.root-servers.net. nstld.verisign-grs.com. 2024021900 1800 900 604800
86400
;; Query time: 11 msec
;; SERVER: 127.0.0.53#53(127.0.0.53) (UDP)
;; WHEN: Mon Feb 19 13:11:48 CET 2024
;; MSG SIZE rcvd: 127

elbog@Elbog-Computer:~$ sudo dig -x www.esprit.tn@10.0.2.15

; <<>> DiG 9.18.18-0ubuntu0.22.04.2-Ubuntu <<>> -x www.esprit.tn@10.0.2.15
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NXDOMAIN, id: 28803
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 65494
;; QUESTION SECTION:
;15.2.0.tn\@10.esprit.www.in-addr.arpa. IN PTR

;; AUTHORITY SECTION:
in-addr.arpa.    3600    IN      SOA      b.in-addr-servers.arpa. nstld.iana.org. 2022093362 1800 900 604800 360
0
;; Query time: 211 msec
;; SERVER: 127.0.0.53#53(127.0.0.53) (UDP)
;; WHEN: Mon Feb 19 13:12:39 CET 2024
;; MSG SIZE rcvd: 133

elbog@Elbog-Computer:~$
```