===============BIND====================

BIND (Berkeley internet name domain) is one of the most widely used DNS servers; it comes standard in most Unix like operating systems.

Check BIND version information.

```
named -v
```

Sample output:

```
BIND 9.11.4-P2-RedHat-9.11.4-17.P2.el8_0.1 (Extended Support Version) <id:7107deb>
```

To check the version number and build options

```
named -V
```

The BIND server will run as the `named` user, which is created during installation, and listens on TCP and UDP port 53, as can be seen by running the following command:

#dnf install net-tools
#netstat -lnptu | grep named

```
linuxbabe@centos8:~$ sudo netstat -lnptu | grep named
tcp        0      0 127.0.0.1:53            0.0.0.0:*               LISTEN      31304/named
tcp        0      0 127.0.0.1:953           0.0.0.0:*               LISTEN      31304/named
tcp6       0      0 ::1:53                  :::*                    LISTEN      31304/named
tcp6       0      0 ::1:953                 :::*                    LISTEN      31304/named
udp        0      0 127.0.0.1:53            0.0.0.0:*                           31304/named
udp6       0      0 ::1:53                  :::*                                31304/named
linuxbabe@centos8:~$
```

Usually, DNS queries are sent to the UDP port 53. The TCP port 53 is for responses size larger than 512 bytes.

The BIND daemon is called **named**. (A daemon is a piece of software that runs in the background.) The `named` binary is installed by the `bind` package and there's another important binary: `rndc`, the remote name daemon controller. The `rndc` binary is used to reload/stop and control other aspects of the BIND daemon. Communication is done over TCP port 953.

For example, we can check the status of the BIND name server.

#rndc status

```
linuxbabe@centos8:~$ sudo rndc status
version: BIND 9.11.4-P2-RedHat-9.11.4-17.P2.el8_0.1 (Extended Support Version) <id:7107deb>
running on centos8: Linux x86_64 4.18.0-80.11.2.el8_0.x86_64 #1 SMP Tue Sep 24 11:32:19 UTC 2019
boot time: Tue, 07 Jan 2020 11:42:41 GMT
last configured: Tue, 07 Jan 2020 11:42:41 GMT
configuration file: /etc/named.conf
CPUs found: 1
worker threads: 1
UDP listeners per interface: 1
number of zones: 103 (97 automatic)
debug level: 0
xfers running: 0
xfers deferred: 0
soa queries in progress: 0
query logging is OFF
recursive clients: 0/900/1000
tcp clients: 2/150
server is up and running
```