Installing Bind9 (System D)

Made by: Aaron Sierra

date created: 02/17/2022

Bind9 version: 1:9.11.5

Note: any text after a box is the command you type.

Overview:

overall steps to install bind9 and get the service up and running.

Note: this is currently in no particular order

- apt install bind9
- modify the config file to allow forwarders
- create a local zone
- create a DB file to manage said zone
- set DNS to yourself (127.0.0.1)
- disable dns sec validation

Installing bind9

☐ apt install bind9

```
root@Communications:/home/cybears# sudo apt install bind9
```

Changing your hostname

First, change your hostname (name of computer) as this is best practice

☐ sudo hostnamectl set-hostname {whatever-you-name-box}

```
root@Communications:/home/cybears# hostnamectl set-hostname Communications
```

Then check to see if the command worked

- [ ] hostname

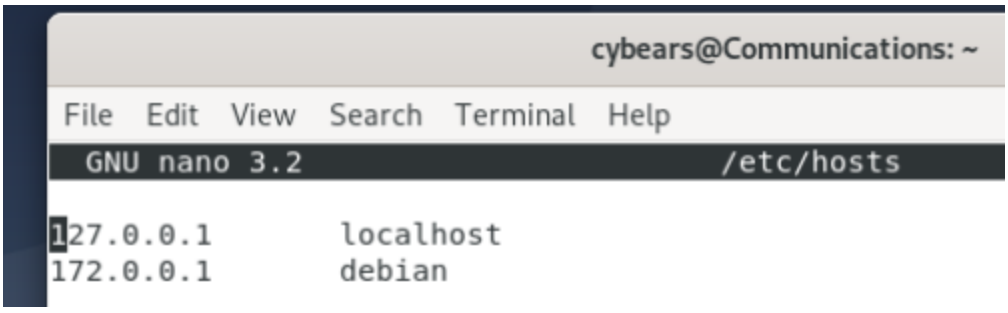
```
root@Communications:/home/cybears# hostname
Communications
```

Now we are going to change the /etc/hosts file to match

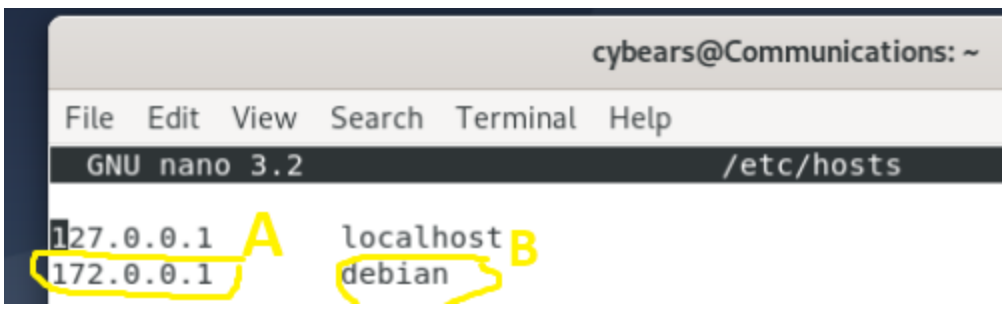
- [ ] sudo nano /etc/hosts

```
root@Communications:/home/cybears# sudo nano /etc/hosts
```

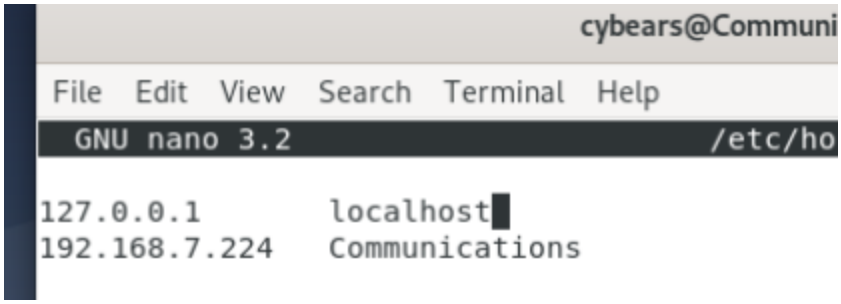
Here is what the file should look like normally



Change part A to {your-ip-address} and part B to {your-hostname}



Here is what it should look like after

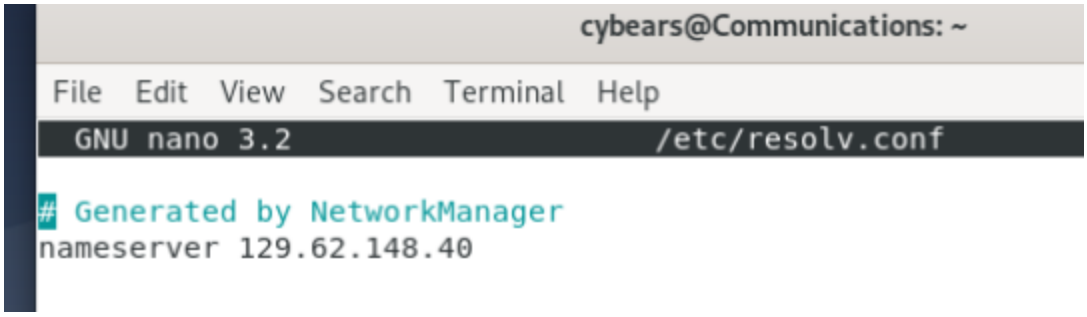


Changing /etc/resolv.conf

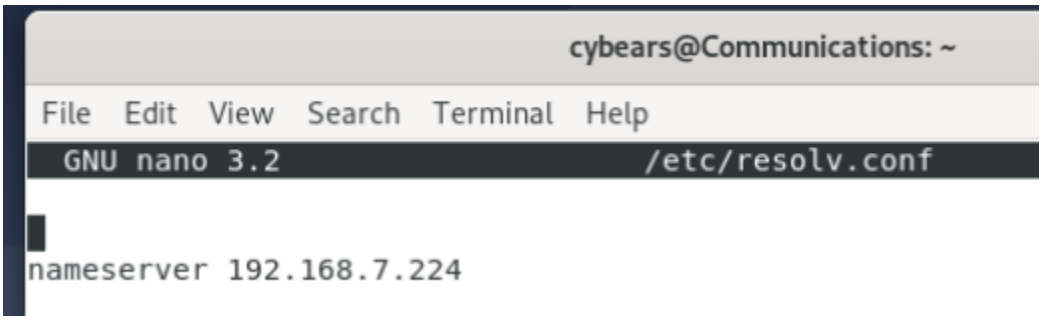
We are going to change the namesever

- [ ] sudo nano /etc/resolv.conf

here is the default file:



Change the nameserver to your machines IP address



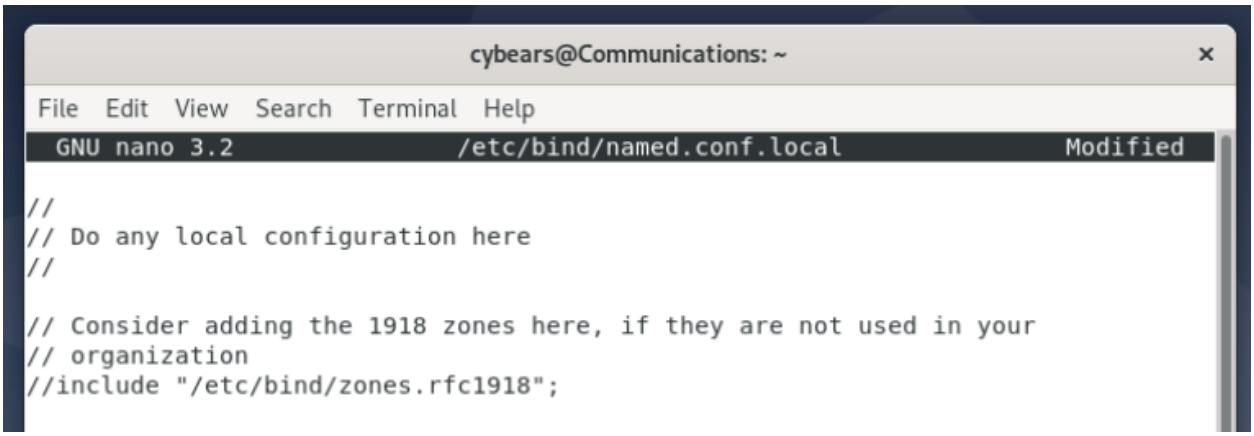
Note: if you are having an issue with the /etc/resolv.conf folder rewriting itself, you can fix this by deleting the file, recreating it, and naming the file read-only. Usually, you will not have this problem.

Adding zones

Go into your /etc/bind/named.conf.local file

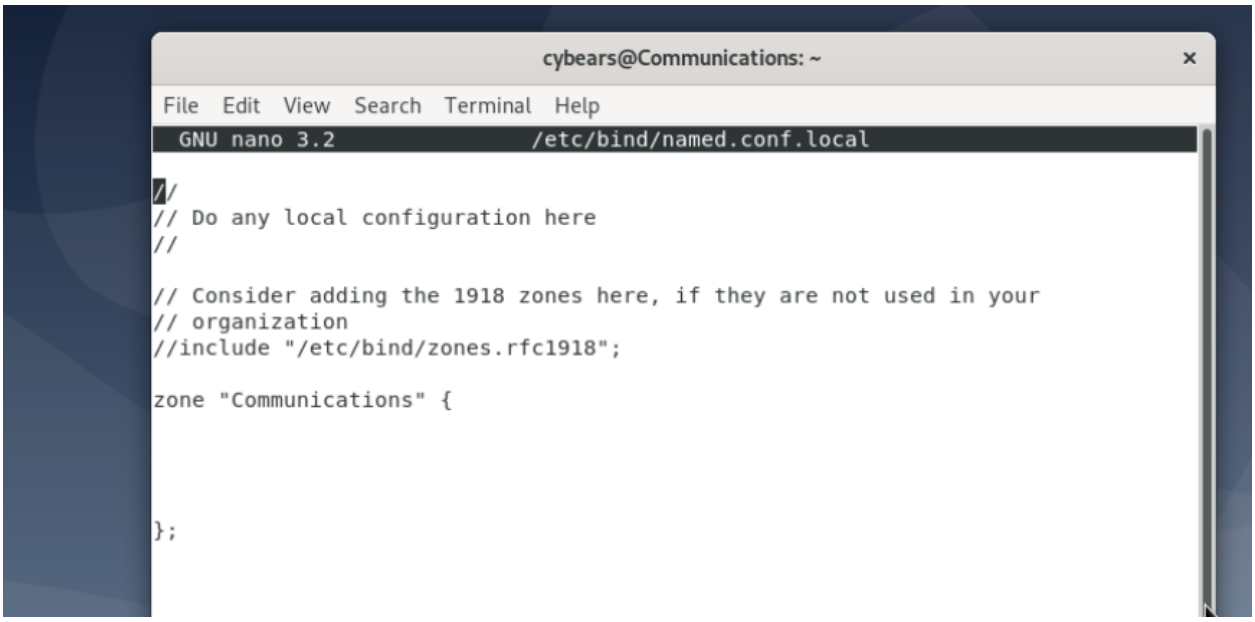
- [ ] sudo nano /etc/bind/named.conf.local

Here is what the file will look like before you edit it



We are going to add a zone

- [ ] zone “ {name-of-zone} “ {};



Now we are going to specify what exactly we what the zone to be

- [ ] type master;
- [ ] file {filename};

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

};
```

we specified what the type of DNS was, and where it could find information.

Now we are going to create a zone directory, where we will place a folder

- [ ] sudo mkdir /etc/bind/zones

```
root@Communications:/home/cybears# sudo mkdir /etc/bind/zones
```

We are going to copy bind9s local zone folder so that we do not have to write a new one from scratch

- [ ] sudo cp /etc/bind/db.local /etc/bind/zones/db.{filename}

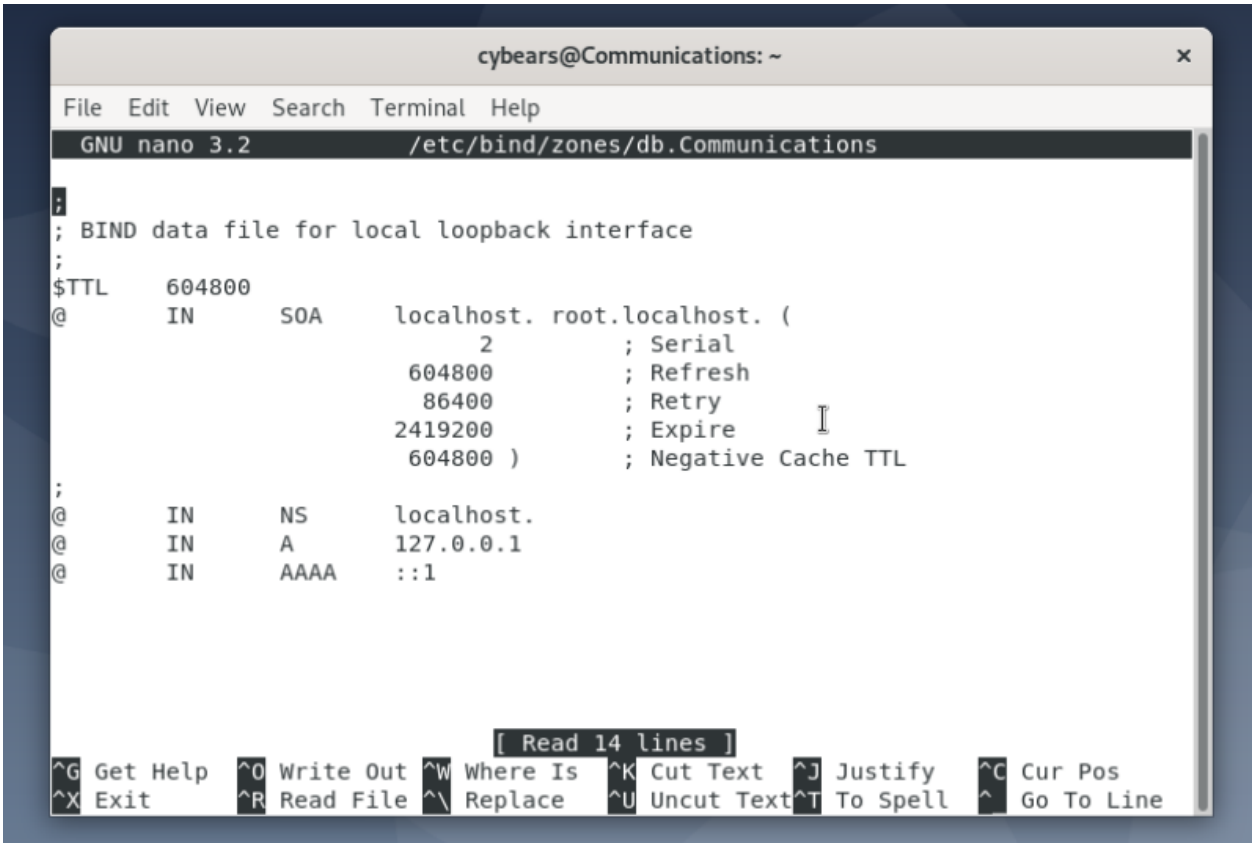
```
root@Communications:/home/cybears# sudo cp /etc/bind/db.local /etc/bind/zones/db
.Communications
```

Now we are going to open it and customize the server

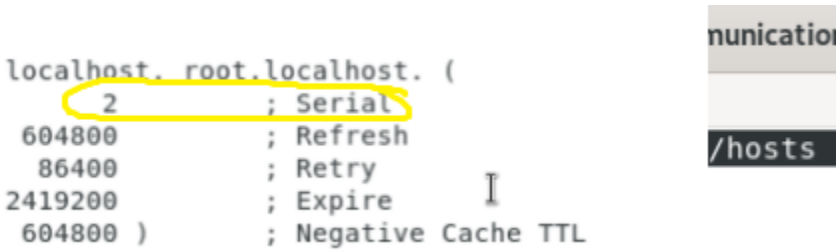
- [ ] sudo nano /etc/bind/zones/db.{filename}

```
root@Communications:/home/cybears# sudo nano /etc/bind/zones/db.Communications
```

Here is what the default file looks like



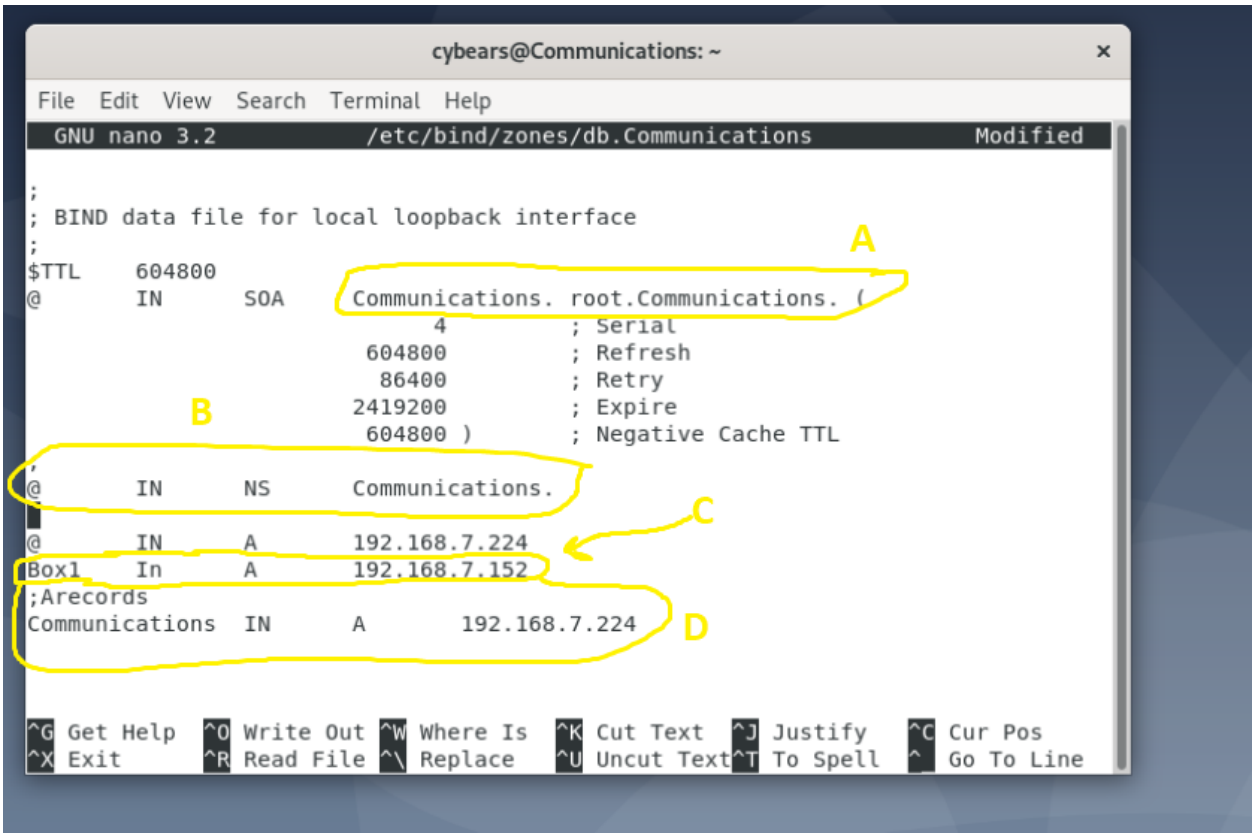
First and foremost, UPDATE THE SERIAL, so bind knows it must update the settings



After

Next you are going to change everything in the list below, notice the differences between the before and after images:

- Change the localhost and root.localhost to your {computername/domainName} (A)
- Change the @ IN to {yourcomputer/DomainName} (B)
- Add any machines you want running through the DNS (C)
- Add Arecords if necessary (D) *(Arecords are assigning a name to an ip, very simple explanation, its not that simple)*



Now we check to see if everything worked properly

- [ ] sudo named-checkzone {computername/domain} /etc/bind/zones/db.{computer/domain}

```
root@Communications:/home/cybears# sudo named-checkzone Communications /etc/bind
/zones/db.Communications
zone Communications/IN: loaded serial 4
OK
```

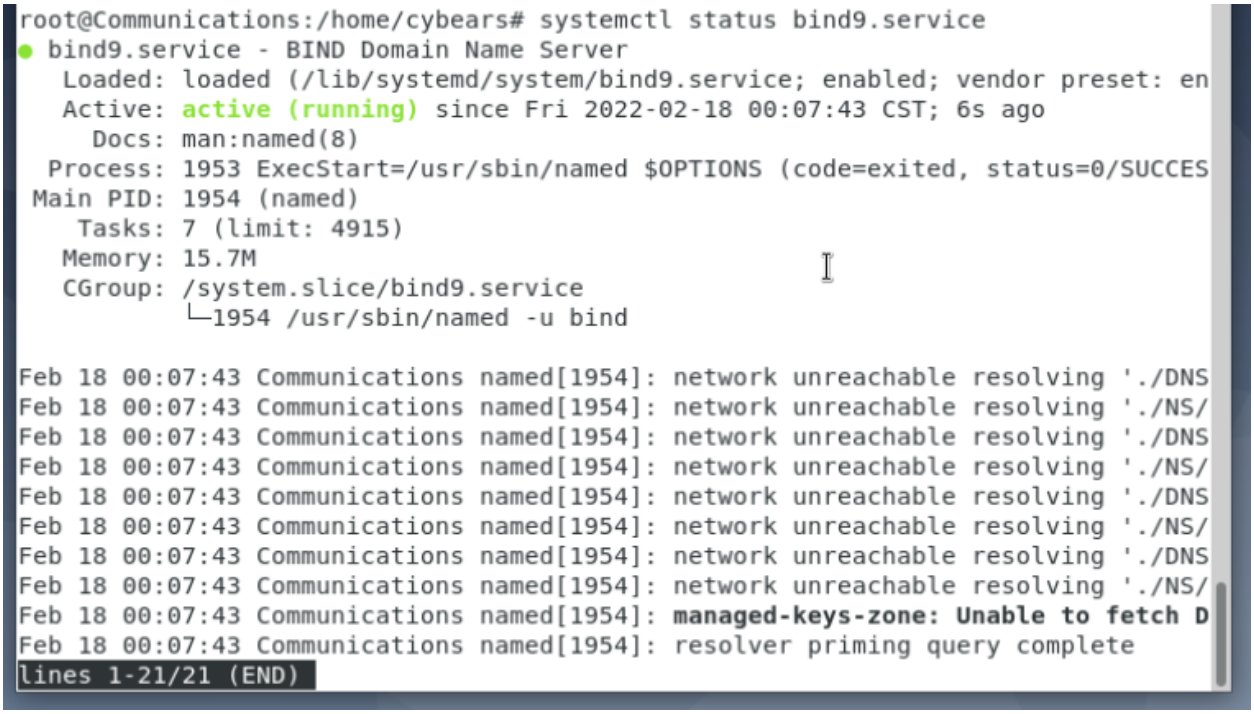
NOTE: IF YOU HAVE AN ERRO AND MUST FIX FILE, DO NOT FORGET TO INCREMENT SERIAL NUMBER

Restart the service

- [ ] sudo systemctl restart bind9.service

```
root@Communications:/home/cybears# systemctl restart bind9.service
```

- [ ] sudo systemctl status bind9.service



NOTE: ANOTHER WAY TO TEST, IS AN NS LOOKUP

From a different computer, type this

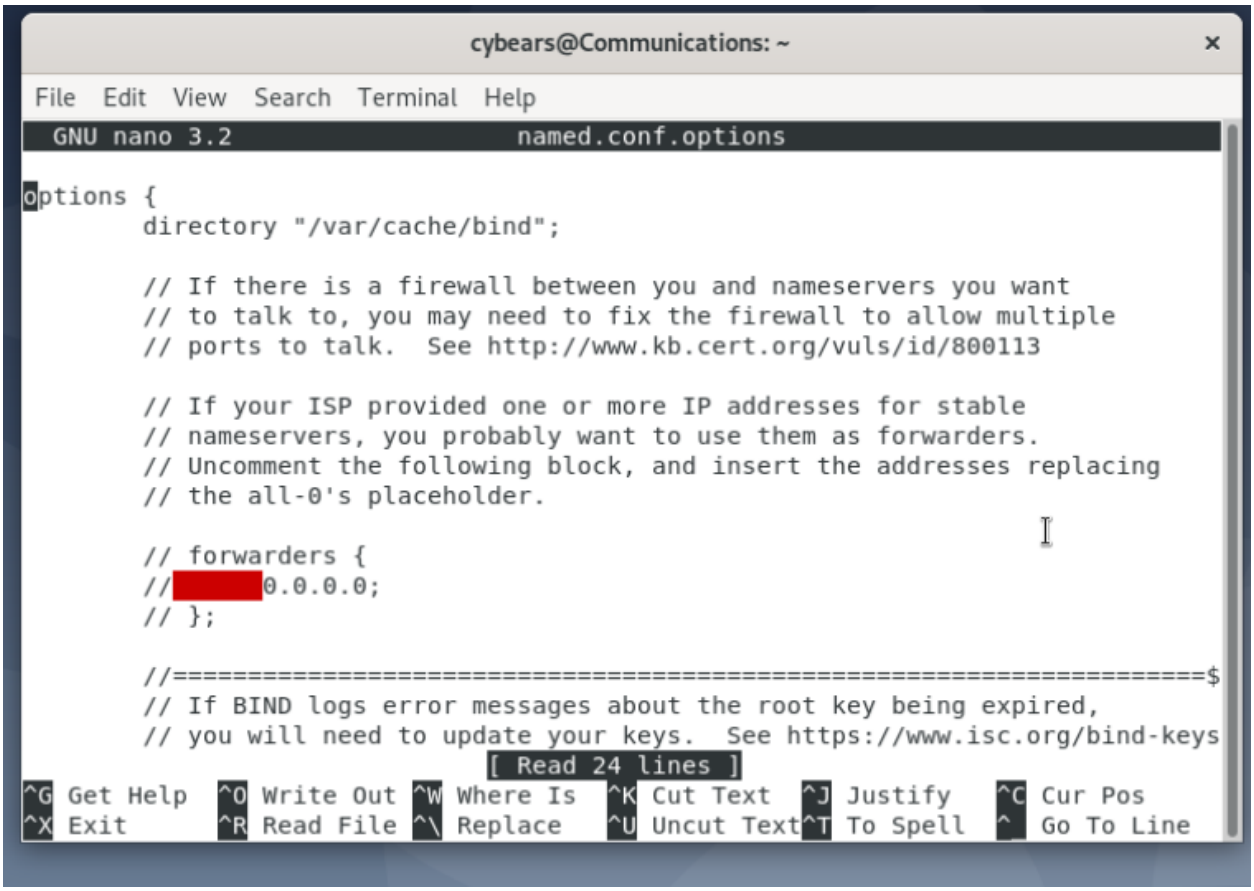
- [ ] nslookup {computer/domain} {DNS IP address}

Ensure you keep your internet

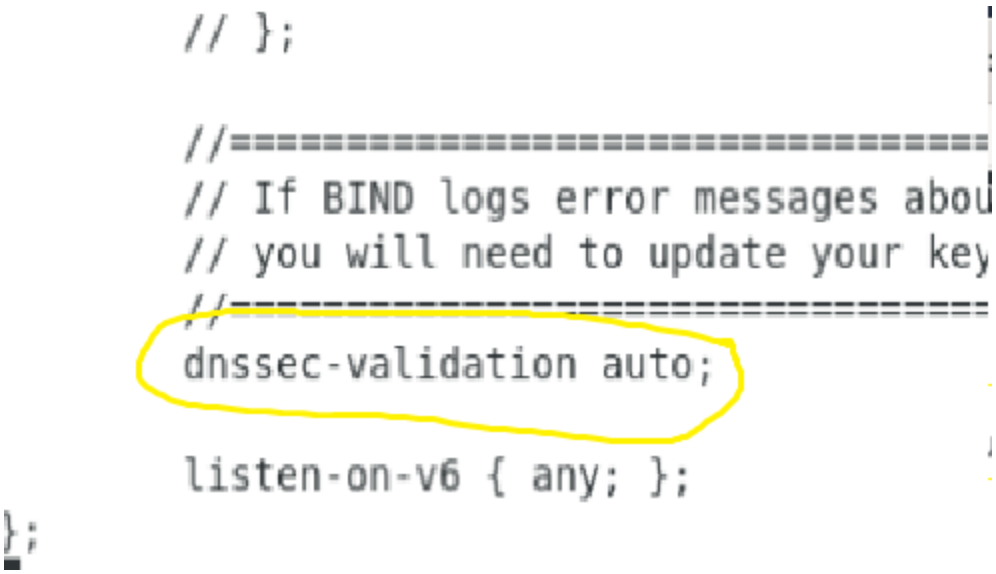
The last step is to disable dnssec validation

- [ ] nano /etc/bind/named.conf.options

Here is the file



Scroll to this option



Change this to no

```
// you will need to update your ke
//=================================
dnssec-validation no;

listen-on-v6 { any; };
```

NOTE: any box you attach to the dns, must have a fixed ip address. This means you have to disable DHCP

🚧 End