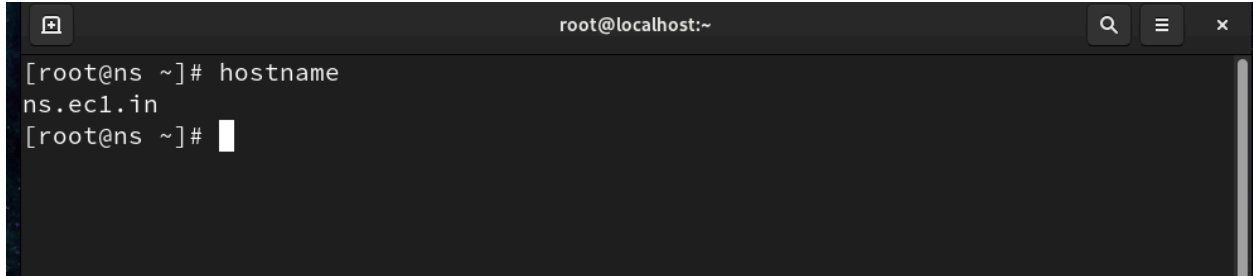


## Configuring the DNS for ec1 and ec2 domain

### 1. Change the hostname

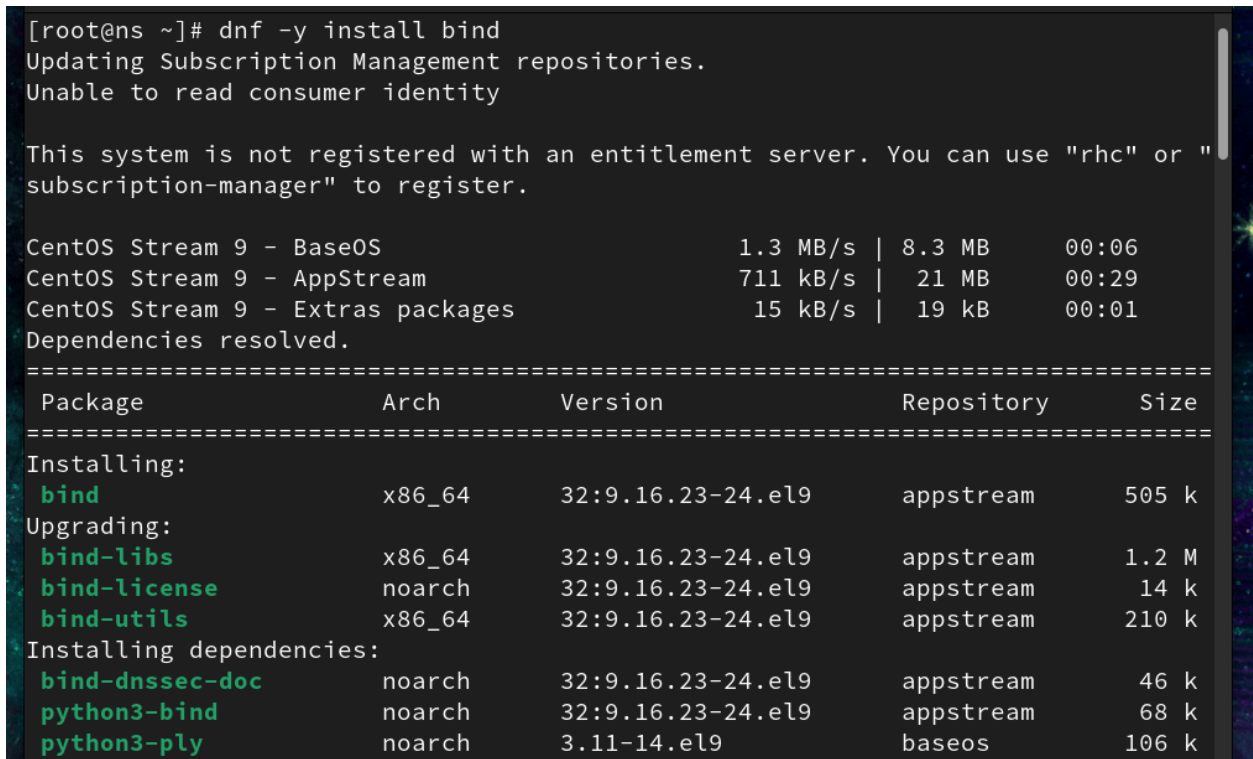
#hostnamectl set-hostname ns.ec1.in

A terminal window titled 'root@localhost:~' showing the command 'hostname' being executed, which returns 'ns.ec1.in'.

```
[root@ns ~]# hostname
ns.ec1.in
[root@ns ~]#
```

### 2. Install the bind software

#dnf -y install bind

A terminal window showing the output of 'dnf -y install bind'. It includes repository update progress, a warning about subscription, and a detailed list of packages to be installed or upgraded.

```
[root@ns ~]# dnf -y install bind
Updating Subscription Management repositories.
Unable to read consumer identity

This system is not registered with an entitlement server. You can use "rhc" or "
subscription-manager" to register.

CentOS Stream 9 - BaseOS                1.3 MB/s | 8.3 MB      00:06
CentOS Stream 9 - AppStream              711 kB/s | 21 MB       00:29
CentOS Stream 9 - Extras packages        15 kB/s | 19 kB        00:01
Dependencies resolved.
=====
Package                                Arch      Version                Repository              Size
=====
Installing:
bind                                   x86_64    32:9.16.23-24.el9      appstream               505 k
Upgrading:
bind-libs                             x86_64    32:9.16.23-24.el9      appstream               1.2 M
bind-license                           noarch    32:9.16.23-24.el9      appstream               14 k
bind-utils                             x86_64    32:9.16.23-24.el9      appstream               210 k
Installing dependencies:
bind-dnssec-doc                        noarch    32:9.16.23-24.el9      appstream               46 k
python3-bind                           noarch    32:9.16.23-24.el9      appstream               68 k
python3-ply                            noarch    3.11-14.el9            baseos                  106 k
```

### 3. Configuring the named.conf file

#vi /etc/named.conf

```

options {
    listen-on port 53 { 192.168.1.15 ; };
    listen-on-v6 port 53 { ::1; }; directory "/var/named";
    dump-file "/var/named/data/cache_dump.db";
    statistics-file "/var/named/data/named_stats.txt";
    memstatistics-file "/var/named/data/named_mem_stats.txt";
    secroots-file "/var/named/data/named.secroots";
    recursing-file "/var/named/data/named.recursing";
    allow-query { any; };

    /*
     - If you are building an AUTHORITATIVE DNS server, do NOT enable recurs
ion.
     - If you are building a RECURSIVE (caching) DNS server, you need to ena
ble
        recursion.

```

Add your dns ip address to the port 53 and allow-query to any

Add this zone configuration to the last line of your two local server

```

zone "." IN {
    type hint;
    file "named.ca";
};

zone "ec1.in" IN {
    type master;
    file "ec1-zone.db";
};

zone "ec2.in" IN {
    type master;
    file "ec2-zone.db";
};

include "/etc/named.rfc1912.zones";
include "/etc/named.root.key";

```

4.Open #cd /var/named/ in that create a new file  
#vi ec1-zone.db

```
root@localhost:/var/named — /usr/bin/vim ec1-zone.db
ec1.in.      10      IN      SOA      ec1.in. chetan.ec1.in.(
                                20010423;
                                1D;
                                1H;
                                1W;
                                10;
                                )
ec1.in.      10      IN      NS       ns.ec1.in.
ns.ec1.in.   10      IN      A        192.168.1.15
ec1.in.      10      IN      MX       1 ec1mail.ec1.in.
ec1mail.ec1.in 10      IN      A        192.168.1.16
~
~
~
~
~
~
~
~
~
~
-- INSERT --                                     11,37-61      All
```

5.Now we have to check the file

```
#named-checkconf /etc/named.conf
```

```
#named-checkzone "ec1.in" /var/named/ec1-zone.db
```

```
[root@ns named]# named-checkconf /etc/named.conf
[root@ns named]# named-checkzone "ec1.in" /var/named/ec1-zone.db
zone ec1.in/IN: ec1.in/MX 'ec1mail.ec1.in' has no address records (A or AAAA)
zone ec1.in/IN: loaded serial 20010423
OK
```

6.Now copy this by using cp command

```
[root@ns named]# cp ec1-zone.db ec2-zone.db
[root@ns named]# vi ec2-zone.db
```

And edit the address with ec2.in

```
root@localhost:/var/named — /usr/bin/vim ec2-zone.db
ec2.in.      10      IN      SOA      ec2.in.  mohit.ec2.in. (
                                20030417;
                                1D;
                                1H;
                                1W;
                                10;
                                )
ec2.in.      10      IN      NS       ns.ec2.in.
ns.ec2.in.   10      IN      A        192.168.1.15
ec2.in.      10      IN      MX       2 ec2mail.ec2.in.
ec2mail.ec2.in 10      IN      A        192.168.1.17
~
~
~
~
~
~
```

```
[root@ns named]# named-checkzone "ec2.in" /var/named/ec2-zone.db
zone ec2.in/IN: ec2.in/MX 'ec2mail.ec2.in' has no address records (A or AAAA)
zone ec2.in/IN: loaded serial 20030417
OK
[root@ns named]#
```

It is saying ok means configuration is successful

7.You had to disable the firewalld service

#systemctl disable --now firewalld

It will disable the firewall service

And #setenforce 0

8. You had to activate the named service

#systemctl enable named

#systemctl restart named

To check status

#systemctl status named

```

[1] - stopped
[root@ns ~]# systemctl enable named
Created symlink /etc/systemd/system/multi-user.target.wants/named.service → /usr/lib/systemd/system/named.service.
[root@ns ~]# systemctl restart named
[root@ns ~]# systemctl status named
● named.service - Berkeley Internet Name Domain (DNS)
   Loaded: loaded (/usr/lib/systemd/system/named.service; enabled; preset: disabled)
   Active: active (running) since Wed 2024-10-09 22:29:48 IST; 2s ago
     Process: 34453 ExecStartPre=/bin/bash -c if [ ! "$DISABLE_ZONE_CHECKING" ==>
     Process: 34455 ExecStart=/usr/sbin/named -u named -c ${NAMEDCONF} $OPTIONS >
   Main PID: 34456 (named)
      Tasks: 14 (limit: 20522)
     Memory: 34.8M
        CPU: 141ms
    CGroup: /system.slice/named.service
            └─34456 /usr/sbin/named -u named -c /etc/named.conf

Oct 09 22:29:48 ns.ec1.in named[34456]: zone localhost.localdomain/IN: loaded s>
Oct 09 22:29:48 ns.ec1.in named[34456]: zone ec2.in/IN: ec2.in/MX 'ec2mail.ec2.>
Oct 09 22:29:48 ns.ec1.in named[34456]: zone ec2.in/IN: loaded serial 20030417
Oct 09 22:29:48 ns.ec1.in named[34456]: zone ec2.in/IN: sending notifies (seria>
Oct 09 22:29:48 ns.ec1.in named[34456]: zone 1.0.0.127.in-addr.arpa/IN: loaded >

```

Now we had to configure for ec1 and ec2 for sendmail service

ec1.in

1. Set hostname to ec1.in

#hostnamectl set-hostname ec1.in

```

[root@ec1 ~]# hostname
ec1.in
[root@ec1 ~]#

```

2. Install the sendmail

#dnf -y install sendmail sendmail-cf

```
ec1.in  
[root@ec1 ~]# dnf -y install sendmail sendmail-cf  
Updating Subscription Management repositories.  
Unable to read consumer identity
```

### 3. Configure the sendmail

#gedit /etc/mail/sendmail.mc

Add dn1 in this 121 line and save it

```
120 dn1 #  
121 dn1 DAEMON_OPTIONS(`Port=smtp,Addr=127.0.0.1, Name=MTA')dn1  
122 dn1 #
```

### 4. Update this

#m4 /etc/mail/sendmail.mc > /etc/mail/sendmail.cf

```
m4: cannot open /etc/mail/sendmail.mc: No such file or directory  
[root@ec1 ~]# m4 /etc/mail/sendmail.mc > /etc/mail/sendmail.cf
```

### 5. Start sendmail service

#systemctl restart sendmail

#systemctl status sendmail

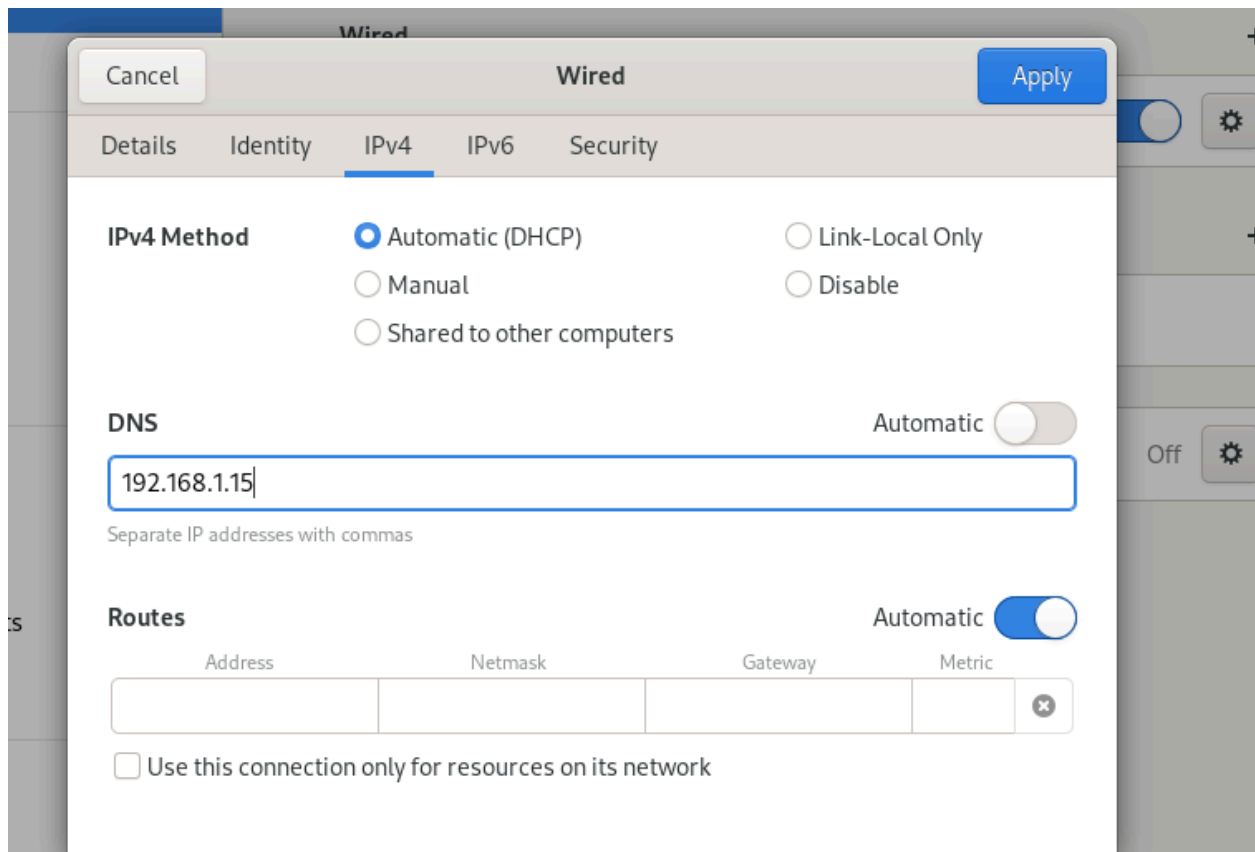
```
[root@ec1 ~]# systemctl restart sendmail  
[root@ec1 ~]# systemctl status sendmail  
● sendmail.service - Sendmail Mail Transport Agent  
   Loaded: loaded (/usr/lib/systemd/system/sendmail.service; enabled; preset:;>  
   Active: active (running) since Wed 2024-10-09 22:41:11 IST; 6s ago  
   Process: 2875 ExecStartPre=/etc/mail/make (code=exited, status=0/SUCCESS)  
   Process: 2879 ExecStartPre=/etc/mail/make aliases (code=exited, status=0/SU>  
   Process: 2883 ExecStart=/usr/sbin/sendmail -bd $SENDMAIL_OPTS $SENDMAIL_OPT>  
   Main PID: 2884 (sendmail)  
     Tasks: 1 (limit: 23032)  
    Memory: 3.5M  
       CPU: 75ms  
    CGroup: /system.slice/sendmail.service  
           └─2884 "sendmail: accepting connections"  
  
Oct 09 22:41:11 ec1.in systemd[1]: Starting Sendmail Mail Transport Agent...  
Oct 09 22:41:11 ec1.in sendmail[2884]: starting daemon (8.16.1): SMTP+queueing@>  
Oct 09 22:41:11 ec1.in systemd[1]: sendmail.service: Can't open PID file /run/s>  
Oct 09 22:41:11 ec1.in systemd[1]: Started Sendmail Mail Transport Agent.  
lines 1-17/17 (END)
```

## 6. Install s-nail

#dnf -y install s-nail

```
[root@ec1 ~]# dnf -y install s-nail
Updating Subscription Management repositories.
Unable to read consumer identity
```

## 7. Add DNS ip address in your system

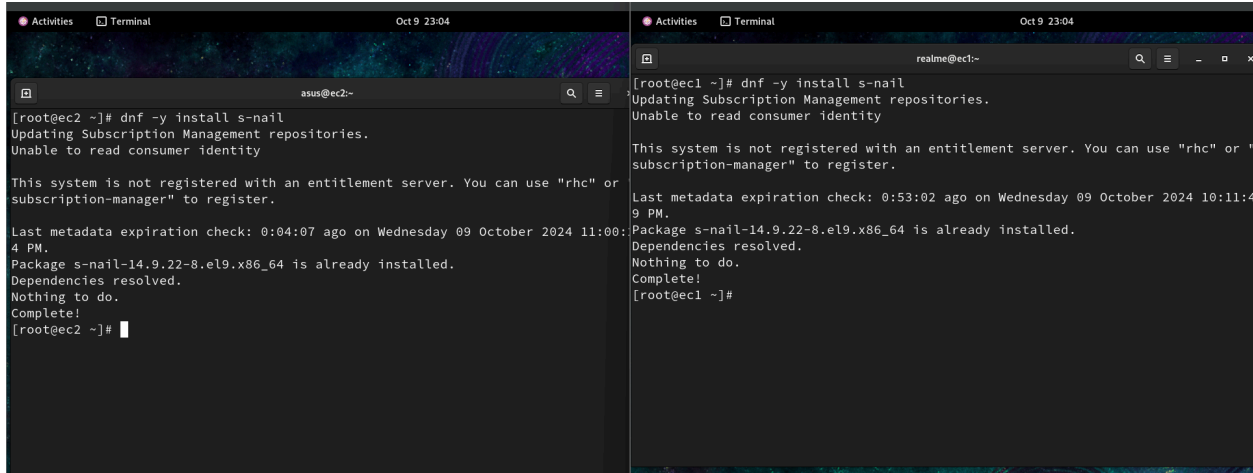


Same thing we had to do with another server with the name ec2.in

After that by send mail from ec1.in to ec2.in

## 1. Install the s-nail

#dnf -y install s-nail on both the sender and receiver



The image shows two terminal windows side-by-side. The left window is titled 'asus@ec2:~' and shows the command '[root@ec2 ~]# dnf -y install s-nail'. The output indicates that the package 's-nail-14.9.22-8.el9.x86\_64' is already installed. The right window is titled 'realme@ec1:~' and shows the command '[root@ec1 ~]# dnf -y install s-nail'. The output also indicates that the package is already installed.

```
[root@ec2 ~]# dnf -y install s-nail
Updating Subscription Management repositories.
Unable to read consumer identity

This system is not registered with an entitlement server. You can use "rhc" or "subscription-manager" to register.

Last metadata expiration check: 0:04:07 ago on Wednesday 09 October 2024 11:00:4 PM.
Package s-nail-14.9.22-8.el9.x86_64 is already installed.
Dependencies resolved.
Nothing to do.
Complete!
[root@ec2 ~]#
```

```
[root@ec1 ~]# dnf -y install s-nail
Updating Subscription Management repositories.
Unable to read consumer identity

This system is not registered with an entitlement server. You can use "rhc" or "subscription-manager" to register.

Last metadata expiration check: 0:53:02 ago on Wednesday 09 October 2024 10:11:49 PM.
Package s-nail-14.9.22-8.el9.x86_64 is already installed.
Dependencies resolved.
Nothing to do.
Complete!
[root@ec1 ~]#
```

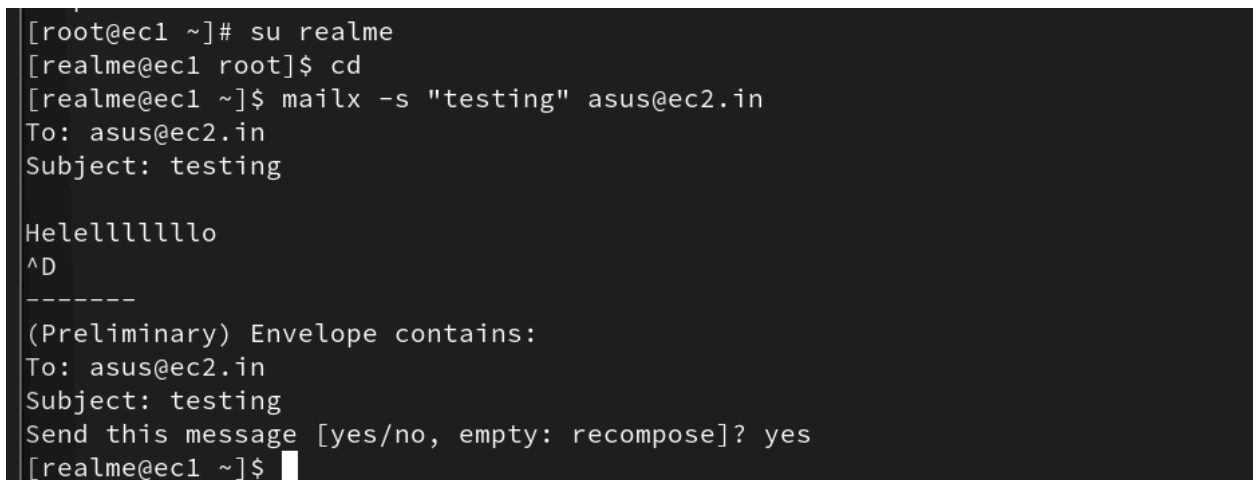
## 2. Switch to the user and then

#mailx -s "testing" [asus@ec2.in](mailto:asus@ec2.in)

It will add subject and you can write the body whatever you want

And then ctrl +D and select the message yes

After that message will be send to the ec1.in user



The image shows a terminal window with the following commands and output: '[root@ec1 ~]# su realme', '[realme@ec1 root]\$ cd', '[realme@ec1 ~]\$ mailx -s "testing" asus@ec2.in'. The output shows the email headers 'To: asus@ec2.in' and 'Subject: testing', followed by the body 'Helellllllllo'. The user then presses Ctrl+D, which results in a '(Preliminary) Envelope contains:' message and a prompt to 'Send this message [yes/no, empty: recompose]? yes'. The user responds with 'yes'.

```
[root@ec1 ~]# su realme
[realme@ec1 root]$ cd
[realme@ec1 ~]$ mailx -s "testing" asus@ec2.in
To: asus@ec2.in
Subject: testing

Helellllllllo
^D
-----
(Preliminary) Envelope contains:
To: asus@ec2.in
Subject: testing
Send this message [yes/no, empty: recompose]? yes
[realme@ec1 ~]$
```

## 3. You can see the mail has been received

For checking the mail

#cd /var/spool/mail/asus



#cat asus

```
From: asus@ec2.in  
Message-Id: <202410091731.499HVqbg007272@ec2.in>  
Date: Wed, 09 Oct 2024 23:01:42 +0530  
To: realme@ec1.in  
Subject: testing  
User-Agent: s-nail v14.9.22
```

HHHHeheheheheh

--499HWDov007287.1728495133/ec2.in--

[asus@ec2 mail]\$