

10) **root@server named]#cp named.localhost forward.zone**

11) root@server named]#cp named.loopback reverse.zone

root@server named]#vim forward.zone

```
[root@localhost Packages]# cd /var/named/
[root@localhost named]# ls
data      named.ca      named.localhost  slaves
dynamic   named.empty   named.loopback
[root@localhost named]# cp named.localhost forward.zone
[root@localhost named]# cp named.loopback reverse.zone
[root@localhost named]# ls
data      forward.zone  named.empty      named.loopback  slaves
dynamic   named.ca      named.localhost  reverse.zone
[root@localhost named]#
```

12) root@server named]#vim reverse.zone

```
$TTL 1D
@      IN  SOA  server.tyit.com. root.server.tyit.com. (
                                0      ; serial
                                1D     ; refresh
                                1H     ; retry
                                1W     ; expire
                                3H )   ; minimum
      IN  NS   server.tyit.com.
      IN  PTR  server.tyit.com.
```

13) root@server named]#chgrp named forward.zone

14) root@server named]#chgrp named reverse.zone

15) root@server named]#server named start

- 1.
2. .edu – A TLD for educational institution
3. .name – A TLD used to register sites for individuals
4. .gov – A TLD given to government
5. .mil – A TLD used for military
6. .org – A TLD used by a non-commercial organization

**Following files are used while Configuring DNS Server.**

**named.conf** – It is main Configuration file that contains global properties and other sources. It is found in / etc/ directory.

**named.ca** – The file contains the name and address of root servers. Used for the purpose of caching of forward zone. It is found in /var/named.

**named.local** – The file provides information for resolving the loopback address for the local host. Also called as named.empty, used for the purpose of caching of reverse zone.

It is found in /var/named/

**The 2 additional files required for the master domain server are:**

- (i) **zone** – This file contains the names and addresses of hosts in the local domain and maps names to IP address.
- (ii) **reverse.zone** – This file provides information to map ip-address to names Hence reverse.

**DNS Configuration**

- 1) root@server ~]#ifconfig

```
[root@localhost named]# service named start
Starting named:
```

[ OK ]

- 3) To check whether DNS is working type the following

- 4) 1) **dig server.tyit.com** 2) **dig -x 192.168.1.3**

5)

```
; <<>> DiG 9.7.0-P2-RedHat-9.7.0-5.P2.el6 <<>> server.tyit.com
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 43082
;; flags: qr aa rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 1, ADDITIONAL: 0

;; QUESTION SECTION:
server.tyit.com.                IN      A

;; ANSWER SECTION:
server.tyit.com.                86400   IN      A      192.168.1.3

;; AUTHORITY SECTION:
tyit.com.                      86400   IN      NS      server.tyit.com.

;; Query time: 0 msec
;; SERVER: 192.168.1.3#53(192.168.1.3)
;; WHEN: Sat Aug 29 17:15:56 2015
;; MSG SIZE rcvd: 63
```

6) 17) To check in the network, type the following

7) (i)ns lookup >server.tyit.com >192.168.1.3 >exit.

8)

```
[root@localhost named]# dig 192.168.1.3 eth0 active

; <<>> DiG 9.7.0-P2-RedHat-9.7.0-5.P2.el6 <<>> 192.168.1.3
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: SERVFAIL, id: 15042
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 0, ADDITIONAL: 0

;; QUESTION SECTION:
192.168.1.3.                   IN      A

;; Query time: 3 msec
;; SERVER: 192.168.1.3#53(192.168.1.3)
;; WHEN: Sat Aug 29 17:16:28 2015
;; MSG SIZE rcvd: 29
```

```
[root@localhost ~]# ifconfig
eth0      Link encap:Ethernet  HWaddr 00:0C:29:A6:40:2D
          inet addr:192.168.1.3  Bcast:192.168.1.255  Mask:255.255.255.
0
          inet6 addr: fe80::20c:29ff:fea6:402d/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:57 errors:0 dropped:0 overruns:0 frame:0
          TX packets:49 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:7024 (6.8 KiB) TX bytes:7588 (7.4 KiB)
          Interrupt:19 Base address:0x2000

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING  MTU:16436  Metric:1
          RX packets:16 errors:0 dropped:0 overruns:0 frame:0
          TX packets:16 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:960 (960.0 b) TX bytes:960 (960.0 b)
```

2) root@server ~]#vim /etc/sysconfig/network-script/ifcfg – eth0

```
DEVICE=eth0
NM_CONTROLLED=yes
ONBOOT=no
HWADDR=00:0c:29:a6:40:2d
TYPE=Ethernet
BOOTPROTO=none
DNS1=192.168.1.3
IPADDR=192.168.1.3
PREFIX=24
DEFROUTE=yes
IPV4_FAILURE_FATAL=yes
IPV6INIT=no
NAME="System eth0"
UUID=5fb06bd0-0bb0-7ffb-45f1-d6edd65f3e03
NETMASK=255.255.255.0
USERCTL=no
```

3) root@server ~]#vim /etc/hosts

```
127.0.0.1    localhost localhost.localdomain localhost4 localhost4.localdomain4
::1         localhost localhost.localdomain localhost6 localhost6.localdomain6
192.168.1.3 server.tyit.com
```

4) root@server ~] #vim /etc/sysconfig/network

```
NETWORKING=yes
HOSTNAME=server.tyit.com
```

5) root@server ~]#vim /etc/resolv.conf

```
1 # Generated by NetworkManager
2
3
4 # No nameservers found; try putting DNS servers into your
5 # ifcfg files in /etc/sysconfig/network-scripts like so:
6 #
7 # DNS1=xxx.xxx.xxx.xxx
8 # DNS2=xxx.xxx.xxx.xxx
9 # DOMAIN=lab.foo.com bar.foo.com
10 search tyit.com
11 nameserver 192.168.1.3
```

6) root@server ~]service network restart

7) To install bind package: Desktop -> CD -> Package -> bind -> install

```
[root@localhost ~]# cd /media/RHEL_6.0\ i386\ Disc\ 1/Packages/
[root@localhost Packages]# rpm -q bind
package bind is not installed
[root@localhost Packages]# rpm -ivh bind*
warning: bind-9.7.0-5.P2.el6.i686.rpm: Header V3 RSA/SHA256 Signature,
key ID fd431d51: NOKEY
Preparing...
##### [100%]
package bind-libs-32:9.7.0-5.P2.el6.i686 is already installed
package bind-utils-32:9.7.0-5.P2.el6.i686 is already installed
[root@localhost Packages]# rpm -q bind
package bind is not installed
[root@localhost Packages]# rpm -ivh bind-9.7.0-5.P2.el6.i686.rpm
warning: bind-9.7.0-5.P2.el6.i686.rpm: Header V3 RSA/SHA256 Signature,
key ID fd431d51: NOKEY
Preparing...
##### [100%]
1:bind
##### [100%]
```