

Assignment : DNS
Computer Networking
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1) Config files: Forward and Reverse for R1 and Kali

```
root@CN-R1: /etc/bind
File Edit View Search Terminal Help
root@CN-R1:/etc/bind# cat db.cnlab.
;
; BIND data file for cnlab
;
$TTL      604800
@         IN      SOA      cnlab. root.cnlab. (
                        2      ; Serial
                        604800  ; Refresh
                        86400   ; Retry
                        2419200 ; Expire
                        604800 ) ; Negative Cache TTL
;
@         IN      A        10.10.10.6
;
@         IN      NS       ns.cnlab.
@         IN      A        127.0.0.1
@         IN      AAAA     ::1
ns        IN      A        10.10.10.6
r1        IN      A        10.10.10.6
r2        IN      A        10.10.10.5
kali      IN      A        10.10.10.4

root@CN-R1:/etc/bind#
```

Capture 1 Bind Data File for Zone 1

```
root@CN-R1: /etc/bind
File Edit View Search Terminal Help
root@CN-R1:/etc/bind# cat db.10.10.
;
; BIND data file for 10.10.X.X net
;
$TTL      604800
@         IN      SOA      ns.cnlab. root.cnlab. (
                        2      ; Serial
                        604800  ; Refresh
                        86400   ; Retry
                        2419200 ; Expire
                        604800 ) ; Negative Cache TTL
;
@         IN      NS       ns.
1.0.0     IN      PTR      ns.cnlab.
root@CN-R1:/etc/bind#
```

Capture 2 Reverse Bind Data File for Zone 1

```
root@CN-R1: /etc/bind
File Edit View Search Terminal Help
root@CN-R1:/etc/bind# cat db.second.cnlab.
;
; BIND data file for second cnlab
;
$TTL      604800
@         IN      SOA      second.cnlab. root.second.cnlab. (
                        2      ; Serial
                        604800  ; Refresh
                        86400   ; Retry
                        2419200 ; Expire
                        604800 ) ; Negative Cache TTL
;
@         IN      A        10.10.10.6
;
@         IN      NS       ns.second.cnlab.
@         IN      A        127.0.0.1
@         IN      AAAA     ::1
ns        IN      A        10.10.10.6
r3        IN      A        10.10.11.9
r4        IN      A        10.10.11.6
ubuntu    IN      A        10.10.11.18

root@CN-R1:/etc/bind#
```

Capture 3 Bind Data File for Zone 2

```
root@CN-R1: /etc/bind
File Edit View Search Terminal Help
root@CN-R1:/etc/bind# cat db.10.10.11.
;
; BIND data file for 10.10.X.X net
;
$TTL      604800
@         IN      SOA      ns.second.cnlab. root.second.cnlab. (
                        2      ; Serial
                        604800  ; Refresh
                        86400   ; Retry
                        2419200 ; Expire
                        604800 ) ; Negative Cache TTL
;
@         IN      NS       ns.
1.0.0     IN      PTR      ns.second.cnlab.

root@CN-R1:/etc/bind#
```

Capture 4 Reverse Bind Data File for Zone 2

```
root@CN-R1: /etc/bind
File Edit View Search Terminal Help
root@CN-R1:/etc/bind# cat 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 "cnlab." {
    type master;
    file "/etc/bind/db.cnlab.";
};

zone "10.10.in-addr.arpa" {
    type master;
    file "/etc/bind/db.10.10.";
};

zone "second.cnlab." {
    type master;
    file "/etc/bind/db.second.cnlab.";
};

zone "10.10.11.in-addr.arpa" {
    type master;
    file "/etc/bind/db.10.10.11.";
};

root@CN-R1:/etc/bind#
```

Capture 5 Named.conf.local File

```
root@CN-R1: /etc/bind
File Edit View Search Terminal Help
root@CN-R1:/etc/bind# cat /etc/resolv.conf
# Dynamic resolv.conf(5) file for glibc resolver(3) generated by resolvconf(8)
#     DO NOT EDIT THIS FILE BY HAND -- YOUR CHANGES WILL BE OVERWRITTEN

nameserver 10.10.10.6
domain cnlab.
search cnlab.
root@CN-R1:/etc/bind#
```

Capture 6 resolv.conf R1

```
root@kali: /etc
File Edit View Search Terminal Help
root@kali:/etc# cat /etc/resolv.conf
nameserver 10.10.10.6
search cnlab.
domain cnlab.
root@kali:/etc#
```

Capture 7 Resolv.conf Kali

2) Ping by Name

```
root@CN-R1: /etc/bind
File Edit View Search Terminal Help
root@CN-R1:/etc/bind# ping kali -c 5
PING kali.cnlab (10.10.10.4) 56(84) bytes of data.
64 bytes from 10.10.10.4: icmp_seq=1 ttl=64 time=0.340 ms
64 bytes from 10.10.10.4: icmp_seq=2 ttl=64 time=0.248 ms
64 bytes from 10.10.10.4: icmp_seq=3 ttl=64 time=0.363 ms
64 bytes from 10.10.10.4: icmp_seq=4 ttl=64 time=0.351 ms
64 bytes from 10.10.10.4: icmp_seq=5 ttl=64 time=0.321 ms

--- kali.cnlab ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 3998ms
rtt min/avg/max/mdev = 0.248/0.324/0.363/0.045 ms
root@CN-R1:/etc/bind#
```

Capture 8 R1 Ping to Kali

```
root@kali: /etc
File Edit View Search Terminal Help
root@kali:/etc# ping r1 -c 5
PING r1.cnlab (10.10.10.6) 56(84) bytes of data.
64 bytes from 10.10.10.6: icmp_seq=1 ttl=64 time=0.282 ms
64 bytes from 10.10.10.6: icmp_seq=2 ttl=64 time=0.340 ms
64 bytes from 10.10.10.6: icmp_seq=3 ttl=64 time=0.295 ms
64 bytes from 10.10.10.6: icmp_seq=4 ttl=64 time=0.319 ms
64 bytes from 10.10.10.6: icmp_seq=5 ttl=64 time=0.378 ms

--- r1.cnlab ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4000ms
rtt min/avg/max/mdev = 0.282/0.322/0.378/0.040 ms
root@kali:/etc#
```

Capture 9 Kali ping R1