

TUGAS DAY 7

Bind 9 adalah suatu domain name service untuk merubah atau translate alamat ip ke alamat yang mudah di ingat oleh pengguna misal contoh kasus di sini ;

- Pertama-tama setelah semua dependensi di install dengan bind9 lalu berikut ini file yang akan di konfigurasi
 1. Named.conf (Untuk Redirect DNS)
 2. Zona Reverse (Translate IP ke Domain)
 3. Zona Forward (Translate Domain ke IP)

- Contoh disini akan membuat dns atasnama.com dengan Record ns1, ns2 , @ , mail , www dan subdomain.

- Update Dependensi

```
[[muhammad_aulia_rahman68@instance-1 ~]$ sudo yum update -y
```

- Install Package Bind9 Beserta Tools nya.

```
Anda harus login sebagai root agar bisa menjalankan perintah ini.  
[[muhammad_aulia_rahman68@instance-1 ~]$ sudo yum install -y bind bind-chroot bind-libs bind-utils caching-nameserver
```

- Mengaktifkan Package bind9 Start service (Pastikan bind sudah running)

```
[[root@instance-1 muhammad_aulia_rahman68]# systemctl start named  
[[root@instance-1 muhammad_aulia_rahman68]# systemctl status named  
● named.service - Berkeley Internet Name Domain (DNS)  
   Loaded: loaded (/usr/lib/systemd/system/named.service; disabled; vendor preset: disabled)  
   Active: active (running) since Rab 2020-06-24 11:36:13 UTC; 15s ago  
 Process: 14897 ExecStart=/usr/sbin/named -u named -c ${NAMEDCONF} $OPTIONS (code=exited, status=0/SUCCESS)  
 Process: 14895 ExecStartPre=/bin/bash -c if [ ! "$DISABLE_ZONE_CHECKING" == "yes" ]; then /usr/sbin/named-ch  
; fi (code=exited, status=0/SUCCESS)  
 Main PID: 14899 (named)  
   CGroup: /system.slice/named.service  
           └─14899 /usr/sbin/named -u named -c /etc/named.conf
```

- Di sini agar permanen kita buat symlink apabila server mati atau restart conf masih dapat reload/running.

```
[[root@instance-1 muhammad_aulia_rahman68]# systemctl enable named  
Created symlink from /etc/systemd/system/multi-user.target.wants/named.service to /usr/lib/systemd/system/named.service.
```

- Secara Default Service Bind berada di /var/named nanti disini akan di cp sebagai default konfigurasi dengan file named.localhost .

```
[[root@instance-1 named]# cat named.localhost  
$TTL 1D  
@      IN SOA  @ rname.invalid. (                0      ; serial  
                                1D      ; refresh  
                                1H      ; retry  
                                1W      ; expire  
                                3H )    ; minimum  
  
NS     @  
A      127.0.0.1  
AAAA   ::1
```

- Untuk konfigurasi service bind berada /etc/named.conf dengan konfigurasi default seperti ini.

```
options {
    listen-on port 53 { 127.0.0.1; };
    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";
    recursing-file  "/var/named/data/named.recursing";
    secroots-file   "/var/named/data/named.secroots";
    allow-query     { localhost; };
}
```

1. Listen-on port disini menerangkan IP dengan jenis ipv4 yang akan di ubah disini masih localhost.
 2. Listen-on-v6 port disini menerangkan ipv6 yang di rubah
- Kita rubah Listen IPV4 menjadi all Ip dan IPV6 disable karena tidak di pakai.

```
options {
    listen-on port 53 { any; };
    #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";
    recursing-file  "/var/named/data/named.recursing";
    secroots-file   "/var/named/data/named.secroots";
    allow-query     { localhost; any; };
    allow-query-cache { localhost; any; };
}
```

- Membuat Zona Forward & Reverse

```
zone "atasnama.com" {
    type master;
    file "/etc/named/forward.zone";
};

zone "0.170.10.in-addr.arpa" {
    type master;
    file "/etc/named/reverse.zone";
};
```

```
zone "0.170.10.in-addr.arpa" {
```

- Membuat Transisi Zona Forward.zone

```
$TTL      86400
@          IN      SOA      atasnama.com. root.atasnama.com. (
        2008111914      ;Serial
        3600            ;Refresh
        1800            ;Retry
        604800          ;Expire
        86400           ;Minimum TTL
)

@          IN      NS       ns1.atasnama.com.
@          IN      NS       ns2.atasnama.com.
@          IN      A        10.170.0.2
ns1        IN      A        10.170.0.2
ns2        IN      A        10.170.0.2
@          IN      MX       10 mail.atasnama.com.
mail       IN      A        10.170.0.2
www        IN      CNAME    atasnama.com.
subdomain1 IN      A        10.170.0.2
```

- Membuat Transisi Zona Reverse.zone

```
$TTL 86400
@          IN      SOA      atasnama.com. root.atasnama.com. (
        2018100902      ;Serial
        3600            ;Refresh
        1800            ;Retry
        604800          ;Expire
        86400           ;Minimum TTL
)

@          IN      NS       ns1.atasnama.com.
@          IN      NS       ns2.atasnama.com.
@          IN      A        10.170.0.2
ns1        IN      A        10.170.0.2
ns2        IN      A        10.170.0.2
@          IN      MX       10 mail.atasnama.com.
mail       IN      A        10.170.0.2
www        IN      CNAME    atasnama.com.
subdomain1 IN      A        10.170.0.2
2          IN      PTR      ns1.atasnama.com.
2          IN      PTR      ns2.atasnama.com.
2          IN      PTR      www.atasnama.com.
2          IN      PTR      mail.atasnama.com.
```

- Check Konfig named.conf

```
[[root@instance-1 named]# named-checkconf /etc/named.conf
[[root@instance-1 named]# █
```

- Check Konfig Reverse & forward dan restart service bind

```
[[root@instance-1 named]# sudo systemctl start named
[[root@instance-1 named]# sudo systemctl enable named
[[root@instance-1 named]# █
```

- Buka Port firewall

```
[[root@instance-1 named]# netstat -nltp
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State       PID/Program nam
tcp        0      0 127.0.0.1:53            0.0.0.0:*               LISTEN      14899/named
tcp        0      0 0.0.0.0:22              0.0.0.0:*               LISTEN      1784/sshd
tcp        0      0 127.0.0.1:953           0.0.0.0:*               LISTEN      14899/named
tcp        0      0 127.0.0.1:25            0.0.0.0:*               LISTEN      1150/master
tcp6       0      0 :::80                   :::*                    LISTEN      1127/httpd
tcp6       0      0 :::1:53                  :::*                    LISTEN      14899/named
tcp6       0      0 :::21                    :::*                    LISTEN      15012/vsftpd
tcp6       0      0 :::22                    :::*                    LISTEN      1784/sshd
tcp6       0      0 :::1:953                  :::*                    LISTEN      14899/named
tcp6       0      0 :::1:25                   :::*                    LISTEN      1150/master
udp        0      0 127.0.0.1:53            0.0.0.0:*               LISTEN      14899/named
udp        0      0 0.0.0.0:68              0.0.0.0:*               600/dhclient
udp        0      0 127.0.0.1:323           0.0.0.0:*               432/chronyd
udp6       0      0 :::1:53                   :::*                    14899/named
udp6       0      0 :::1:323                  :::*                    432/chronyd

[[root@instance-1 named]# firewall-cmd --permanent --add-port=53/tcp
success
[[root@instance-1 named]# firewall-cmd --permanent --add-port=53/udp
success
[[root@instance-1 named]# firewall-cmd --reload
```

- Menambahkan Ip local di resolv.conf

```
nameserver 10.170.0.2
```

- Restart Network check semua conf

```
[[root@instance-1 named]# systemctl restart network
[[root@instance-1 named]# named-checkzone forward.zone /etc/named/forward.zone
zone forward.zone/IN: loaded serial 2008111914
OK
[[root@instance-1 named]# named-checkzone reverse.zone /etc/named/reverse.zone
zone reverse.zone/IN: loaded serial 2018100902
OK
```

- Cek apakah sudah propagation dns atasnama.com

```
[[root@instance-1 named]# ping atasnama.com
PING atasnama.com (10.170.0.2) 56(84) bytes of data.
64 bytes from atasnama.com (10.170.0.2): icmp_seq=1 ttl=64 time=0.045 ms
64 bytes from atasnama.com (10.170.0.2): icmp_seq=2 ttl=64 time=0.068 ms
64 bytes from atasnama.com (10.170.0.2): icmp_seq=3 ttl=64 time=0.101 ms
64 bytes from atasnama.com (10.170.0.2): icmp_seq=4 ttl=64 time=0.104 ms
```