

SISTEM TERDISTRIBUSI
“Konfigurasi server DNS dan client”



Disusun oleh :

Nama : Clarisa Putri Amanda
NIM : 09011282126094
Kelas : SK 6C Indralaya
Dosen Pengampuh : Ahmad Heryanto. S.Kom., M.T.
Adi Hermansyah, S.Kom., M.T

PROGRAM STUDI SISTEM KOMPUTER
FAKULTAS ILMU KOMPUTER
UNIVERSITAS SRIWIJAYA
PALEMBANG
2024

1. Jelaskan perintah berikut untuk install bind9

- **apt install bind9**

```
clarisa@clarisa-virtual-machine:~$ sudo su
[sudo] katasandi untuk clarisa:
root@clarisa-virtual-machine:/home/clarisa# apt install bind9
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
bind9 sudah versi terbaru (1:9.18.18-0ubuntu0.22.04.2).
0 dimutakhirkan, 0 baru terinstal, 0 akan dihapus dan 67 tidak akan
```

Jika status firewall pada server aktif maka silahkan di Allow pada port 53 dengan perintah

- **ufw allow 53**

```
root@clarisa-virtual-machine:/home/clarisa# ufw allow 53
Skipping adding existing rule
Skipping adding existing rule (v6)
```

2. Konfigurasi Network Interface

Sebelumnya kita konfigurasi IP Address secara Static, Resolv.conf dan hosts seperti dibawah ini.

- **nano /etc/netplan/00-installer-config.yaml**

```
root@clarisa-virtual-machine:/home/clarisa# nano /etc/netplan/00-installer-config.yaml
```

Konfigurasi Resolv.conf

- **nano /etc/resolv.conf**

```
nameserver 192.168.139.136
nameserver 192.168.139.255
options edns0
serach caca.com
```

Konfigurasi Hosts

- **nano /etc/hosts**

```
GNU nano 6.2 /etc/hosts
127.0.0.1    localhost
127.0.1.1    clarisa-virtual-machine
192.168.139.136 caca.com
```

3. Konfigurasi DNS Server

- **nano /etc/bind/named.conf.local**

Pada bagian ini BIND9 akan dikonfigurasi sebagai server utama dengan contoh nama domain menggunakan nama aspal.com. rekan-rekan cukup mengganti fitri.com dengan FQDN (Fully Qualified Domain Name)

```
root@clarisa-virtual-machine:/home/clarisa# nano /etc/bind/named.conf.local
root@clarisa-virtual-machine:/home/clarisa# nano /etc/bind/named.conf.local
```

selanjutnya gunakan file zone yang sudah ada sebagai template untuk membuat file /etc/bind/db.fitri

- **cp /etc/bind/db.local /etc/bind/db.caca**

edit seperti dibawah ini. Untuk Coomon Record Types

```
root@clarisa-virtual-machine:/home/clarisa# nano /etc/bind/db.caca
root@clarisa-virtual-machine:/home/clarisa# nano /etc/bind/db.caca
```

```
GNU nano 6.2 /etc/bind/db.caca
;
; BIND data file for local loopback interface
;
$TTL 604800
@ IN SOA localhost. root.localhost. (
    2      ; Serial
    604800 ; Refresh
    86400  ; Retry
    2419200 ; Expire
    604800 ) ; Negative Cache TTL
;
@ IN NS localhost.
@ IN A 127.0.0.1
@ IN AAAA ::1

Membaca 14 baris
^G Bantuan ^O Tulis ^W Cari ^K Potong ^T Jalankan
^X Keluar ^R Baca ^_ Ganti ^U Tempel ^J Ratakan
```

Simpan perubahan lalu restart service BIND9

- **systemctl restart bind9.service**

Selanjutnya kita akan membuat Reverse zone file. Reverse zone perlu ditambahkan untuk memungkinkan DNS untuk me resolv dari IP Address ke nama domain. Edit file /etc/bind/named.conf.local lalu Tambahkan script dibawah ini.

- **nano /etc/bind/named.conf.local**
- **nano /etc/bind/named.conf.local**

Selanjutnya buat file /etc/bind/db.192

- **cp /etc/bind/db.127 /etc/bind/db.192**
- **nano /etc/bind/db.192**

```
;
; BIND reverse data file for caca
;
$TTL      604800
@         IN      SOA      ns.caca.com. root.caca.com
                        2          ; Serial
                        604800     ; Refresh
                        86400      ; Retry
                        2419200    ; Expire
                        604800 )   ; Negative Cache TTL
;
@         IN      NS       ns.caca.com.
1         IN      PTR      ns.caca.com.
1         IN      PTR      www.aspal.com
1         IN      PTR      mail.aspal.com
```

Simpan perubahan lalu restart service BIND9

- **systemctl restart bind9.service**
- **nano /etc/bind/named.conf.options**

```
GNU nano 6.2 /etc/bind/named.conf.options *
options {
    directory "/var/cache/bind";

    // If there is a firewall between you and nameservers you want
    // to talk to, you may need to fix the firewall to allow multiple
    // ports to talk. See http://www.kb.cert.org/vuls/id/800113

    // If your ISP provided one or more IP addresses for stable
    // nameservers, you probably want to use them as forwarders.
    // Uncomment the following block, and insert the addresses replac
    // the all-0's placeholder.

    // forwarders {
    //     8.8.8.8;
    //     8.8.4.4;
    // };
```

Simpan perubahan lalu restart service BIND9

- **systemctl restart bind9.service**

4. Pengetesan

pengkonfigurasi ip pada pc client disini saya menggunakan windows sebagai client

```
Command Prompt
Microsoft Windows [Version 10.0.22000.2538]
(c) Microsoft Corporation. All rights reserved.

C:\Users\HP>ping 192.168.139.136

Pinging 192.168.139.136 with 32 bytes of data:
Reply from 192.168.139.136: bytes=32 time<1ms TTL=64
Reply from 192.168.139.136: bytes=32 time<1ms TTL=64
Reply from 192.168.139.136: bytes=32 time<1ms TTL=64
Reply from 192.168.139.136: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.139.136:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Users\HP>ping www.caca.com

Pinging www.caca.com [173.255.194.134] with 32 bytes of data:
Reply from 173.255.194.134: bytes=32 time=268ms TTL=49
Reply from 173.255.194.134: bytes=32 time=255ms TTL=49
Reply from 173.255.194.134: bytes=32 time=236ms TTL=49
Reply from 173.255.194.134: bytes=32 time=264ms TTL=49

Ping statistics for 173.255.194.134:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 236ms, Maximum = 268ms, Average = 255ms

C:\Users\HP>
```

Telihat disana saat pengetesan ping pada ip 192.168.139.136 bisa. Ping pada situs www.caca.com pun selesai dan pc client pun terhubung

