

Soal Terkait

DNS (2 poin + 1.5 poin bonus)



Alice - Detektif NEET

Ketentuan

Simulasikan sebuah jaringan yang memiliki DNS dengan tiga buah VM :

1. VM 1 digunakan sebagai server DNS
2. VM 2 digunakan sebagai server HTTP
3. VM 3 digunakan sebagai client yang membuat koneksi ke VM 2 menggunakan nama domain yang ditetapkan di VM 1

Ketiga VM tidak boleh terhubung pada internet saat demo (bisa menggunakan *virtual switch* atau *internal network*)

Catatan: Untuk VirtualBox di OS Windows dengan WSL, mungkin VirtualBox akan terasa sangat lag. Coba solusi di sini (akan mematikan WSL sementara) :

<https://www.wintips.org/fix-virtualbox-running-very-slow-in-windows-10-11/>

Bonus

- (Poin 1) Gunakan DHCP sehingga VM 3 tidak perlu mengatur alamat IP dan DNS secara manual
- (Poin 0.5) Gunakan OS tanpa window manager maupun desktop environment, seperti [Debian](#) (Uncheck seluruh *desktop environment* saat instalasi). Bonus ini sangat disarankan untuk dikerjakan karena hanya butuh alokasi RAM sekitar 512 MB sampai 1024 MB per VM.

Tujuan

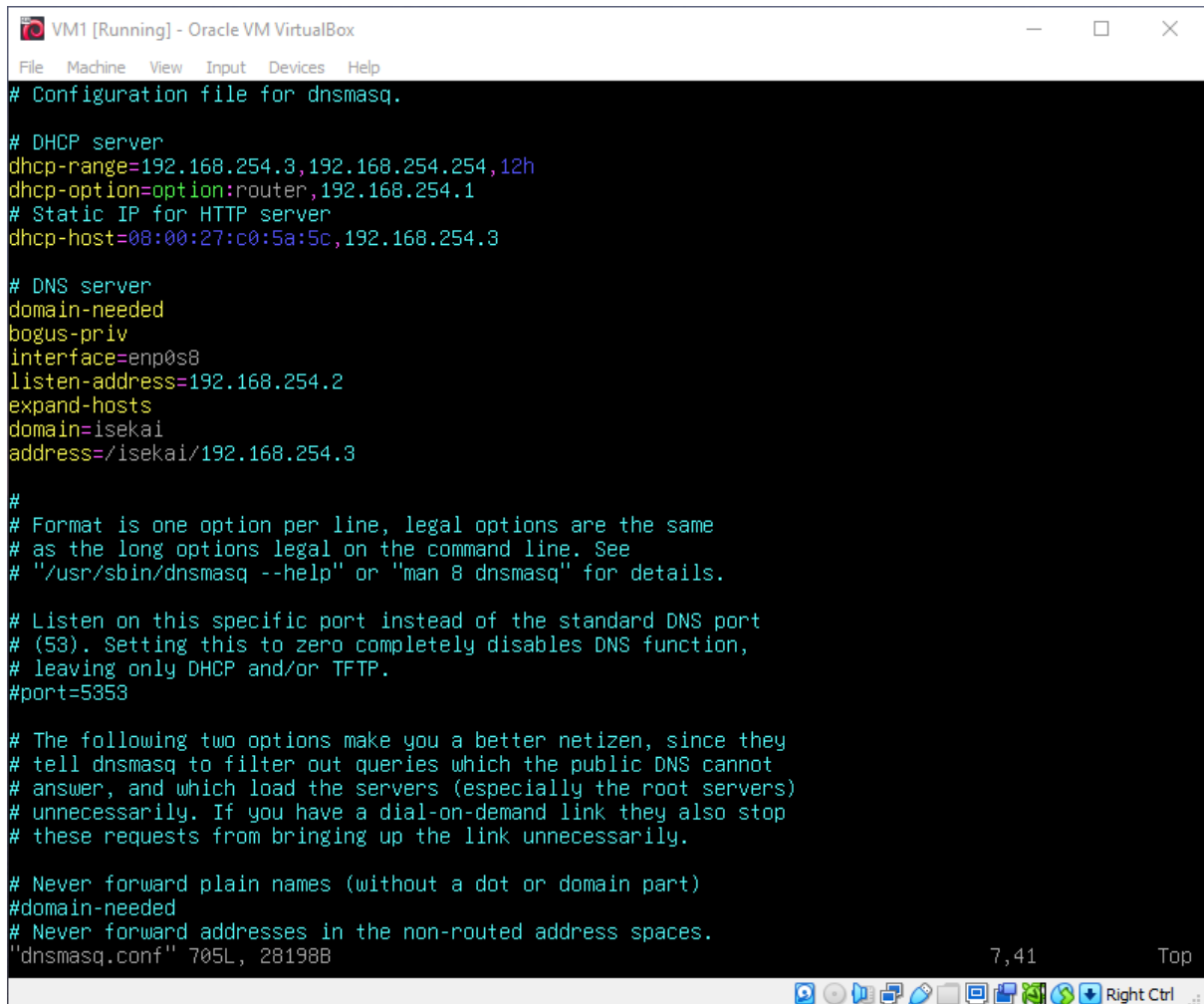
- Mengetahui cara kerja DNS
- Belajar jadi CLI user

Berkas

- Konfigurasi yang diterapkan pada VM 1, VM 2, dan VM 3
- Berkas dokumen yang berisi pranala ke sebuah video yang menunjukkan :
 - Ketiga VM tidak terkoneksi pada internet
 - Akses VM 3 ke VM 2 menggunakan domain name yang ditentukan

Konfigurasi VM1

/etc/dnsmasq.conf



The image shows a terminal window titled "VM1 [Running] - Oracle VM VirtualBox". The window contains the configuration file for dnsmasq, located at /etc/dnsmasq.conf. The configuration is as follows:

```
# Configuration file for dnsmasq.

# DHCP server
dhcp-range=192.168.254.3,192.168.254.254,12h
dhcp-option=option:router,192.168.254.1
# Static IP for HTTP server
dhcp-host=08:00:27:c0:5a:5c,192.168.254.3

# DNS server
domain-needed
bogus-priv
interface=enp0s8
listen-address=192.168.254.2
expand-hosts
domain=isekai
address=/isekai/192.168.254.3

#
# Format is one option per line, legal options are the same
# as the long options legal on the command line. See
# "/usr/sbin/dnsmasq --help" or "man 8 dnsmasq" for details.

# Listen on this specific port instead of the standard DNS port
# (53). Setting this to zero completely disables DNS function,
# leaving only DHCP and/or TFTP.
#port=5353

# The following two options make you a better netizen, since they
# tell dnsmasq to filter out queries which the public DNS cannot
# answer, and which load the servers (especially the root servers)
# unnecessarily. If you have a dial-on-demand link they also stop
# these requests from bringing up the link unnecessarily.

# Never forward plain names (without a dot or domain part)
#domain-needed
# Never forward addresses in the non-routed address spaces.
"dnsmasq.conf" 705L, 28198B
```

The terminal window also shows a status bar at the bottom with the text "7,41" and "Top".

Konfigurasi VM1

/etc/network/interfaces (static soalnya sebagai dhcp server)

[illegible]

Konfigurasi VM2

```
/etc/network/interfaces (pake dhcpd)
```

[illegible]

Konfigurasi VM3

```
/etc/network/interfaces (pake dhcpd)
```

[illegible]

Bukti ping:

A screenshot of a Windows desktop with a VMware Workstation window titled "VM3 [Running] - Oracle VM VirtualBox". The window shows a Linux terminal session. The user has edited the /etc/network/interfaces file to configure two interfaces: 'lo' (loopback) and 'enp0s3' (primary network), both set to DHCP. After saving the file, the user ran 'ifconfig' which showed the loopback interface 'lo' up and running at 192.168.254.1. Then, the user ran 'ping isekai', which resulted in successful pings from 'vm2.isekai' (192.168.254.3) with times around 0.4 ms. The taskbar at the bottom shows various application icons and the system clock at 11:57 AM on 11/11/2023.

Link video:

<https://youtu.be/iSbl8hGe-VE>