

LAPORAN
CARA MEMASANG DAN MENGONFIGURASI SSH DI UBUNTU
DAN MENCOBA PING

Disusun Untuk Memenuhi Tugas Mata Kuliah Sistem Operasi



Disusun Oleh

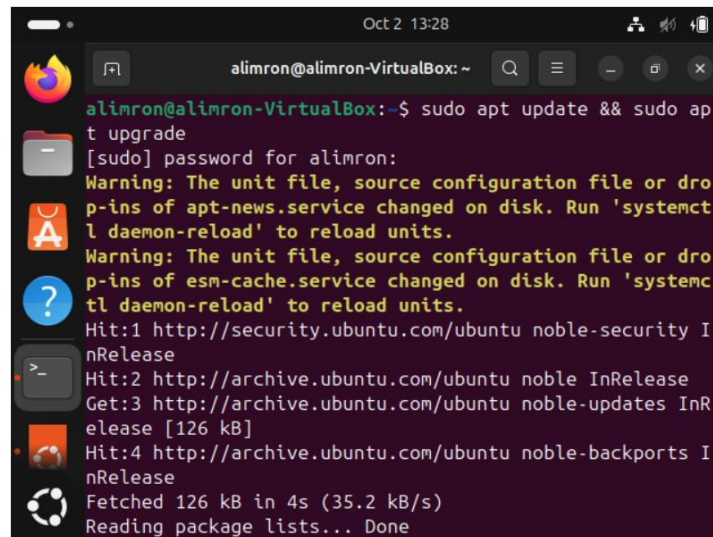
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PROGRAM STUDI SISTEM KOMPUTER
FAKULTAS ILMU KOMPUTER
UNIVERSITAS SRIWIJAYA

2024

1. Siapkan ubuntu

`sudo apt update && sudo apt upgrade`

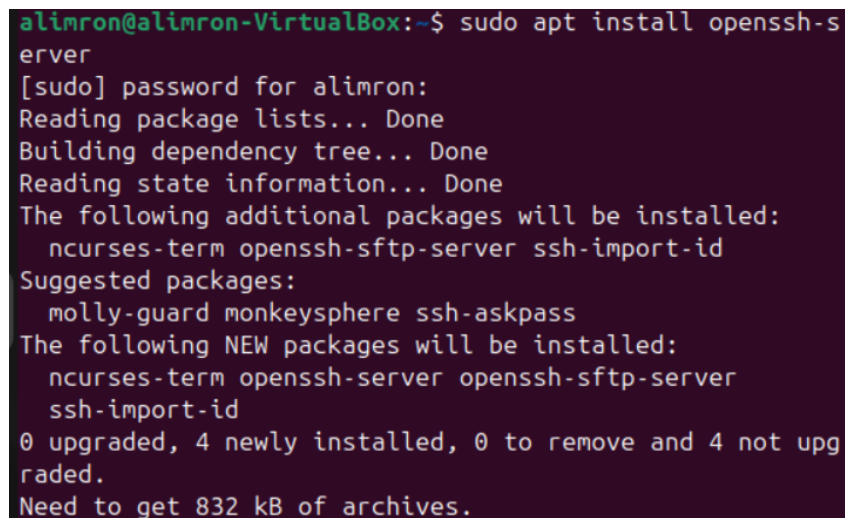


```
alimron@alimron-VirtualBox: ~  
alimron@alimron-VirtualBox:~$ sudo apt update && sudo apt upgrade  
[sudo] password for alimron:  
Warning: The unit file, source configuration file or drop-ins of apt-news.service changed on disk. Run 'systemctl daemon-reload' to reload units.  
Warning: The unit file, source configuration file or drop-ins of esm-cache.service changed on disk. Run 'systemctl daemon-reload' to reload units.  
Hit:1 http://security.ubuntu.com/ubuntu noble-security InRelease  
Hit:2 http://archive.ubuntu.com/ubuntu noble InRelease  
Get:3 http://archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]  
Hit:4 http://archive.ubuntu.com/ubuntu noble-backports InRelease  
Fetched 126 kB in 4s (35.2 kB/s)  
Reading package lists... Done
```

Hal pertama yang perlu Anda lakukan sebelum mulai menginstal SSH di Ubuntu adalah memperbarui semua aptpaket ke versi terbaru

2. Instal SSH Ubuntu

`sudo apt install openssh-server`



```
alimron@alimron-VirtualBox:~$ sudo apt install openssh-server  
[sudo] password for alimron:  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
The following additional packages will be installed:  
  ncurses-term openssh-sftp-server ssh-import-id  
Suggested packages:  
  molly-guard monkeysphere ssh-askpass  
The following NEW packages will be installed:  
  ncurses-term openssh-server openssh-sftp-server ssh-import-id  
0 upgraded, 4 newly installed, 0 to remove and 4 not upgraded.  
Need to get 832 kB of archives.
```

Instalasi semua komponen yang diperlukan akan dimulai. Jawab "Ya" untuk semua perintah sistem.

3. Memulai SSH

`sudo systemctl enable --now ssh`

```
alimron@alimron-VirtualBox:~$ sudo systemctl enable --now ssh
Synchronizing state of ssh.service with SysV service script with /usr/lib/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install enable ssh
Created symlink /etc/systemd/system/ssh.service → /usr/lib/systemd/system/ssh.service.
Created symlink /etc/systemd/system/multi-user.target.wants/ssh.service → /usr/lib/systemd/system/ssh.service.
```

Setelah permulaan berhasil, Anda akan melihat pesan sistem berikut. Kunci tersebut --now membantu Anda meluncurkan layanan dan sekaligus mengaturnya untuk memulai saat sistem di-boot.

Untuk memverifikasi bahwa layanan diaktifkan dan berjalan dengan sukses, ketik:

`sudo systemctl status ssh`

```
alimron@alimron-VirtualBox:~$ sudo systemctl status ssh
● ssh.service - OpenBSD Secure Shell server
   Loaded: loaded (/usr/lib/systemd/system/ssh.service; vendor preset: enabled)
   Active: active (running) since Wed 2024-10-02 12:57:18 UTC; 1min 1s ago
   TriggeredBy: ● ssh.socket
   Docs: man:sshd(8)
        man:sshd_config(5)
  Process: 31510 ExecStartPre=/usr/sbin/sshd -t (code=0)
 Main PID: 31512 (sshd)
    Tasks: 1 (limit: 4616)
   Memory: 1.2M (peak: 1.5M)
      CPU: 107ms
   CGroup: /system.slice/ssh.service
           └─31512 "sshd: /usr/sbin/sshd -D [listener] 1 of 128 forks"

Oct 02 12:57:18 alimron-VirtualBox systemd[1]: Starting OpenBSD Secure Shell server: sshd.
Oct 02 12:57:18 alimron-VirtualBox sshd[31512]: Server listening for connections on port 22.
```

Output seharusnya berisi `Active: active (running)` baris yang menunjukkan bahwa layanan berhasil dijalankan.

Jika Anda ingin menonaktifkan layanan, jalankan:

```
sudo systemctl disable ssh
```

```
alimron@alimron-VirtualBox:~$ sudo systemctl disable ssh
Synchronizing state of ssh.service with SysV service script with /usr/lib/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install disable ssh
Removed "/etc/systemd/system/multi-user.target.wants/ssh.service".
Removed "/etc/systemd/system/sshd.service".
Disabling 'ssh.service', but its triggering units are still active:
ssh.socket
```

Ini menonaktifkan layanan dan mencegahnya memulai saat boot.

4. Konfigurasi firewall

```
sudo ufw status
```

```
alimron@alimron-VirtualBox:~$ sudo ufw status
Status: inactive
```

Pada output, Anda akan melihat bahwa lalu lintas SSH diizinkan. Jika tidak tercantum, Anda perlu mengizinkan koneksi SSH yang masuk. Perintah ini akan membantu Anda:

```
sudo ufw allow ssh
```

```
alimron@alimron-VirtualBox:~$ sudo ufw allow ssh
Skipping adding existing rule
Skipping adding existing rule (v6)
```

5. Hubungkan ke server

Setelah Anda menyelesaikan semua langkah sebelumnya, Anda dapat masuk ke server menggunakan protokol SSH.

Untuk melakukan ini, Anda memerlukan alamat IP atau nama domain server dan nama pengguna yang dibuat di server.

```
ssh username@IP_address
```

```
alimron@alimron-VirtualBox:~$ ssh alimron@192.168.56.1
ssh: connect to host 192.168.56.1 port 22: Connection ti
med out
```

6. Konfigurasi SSH

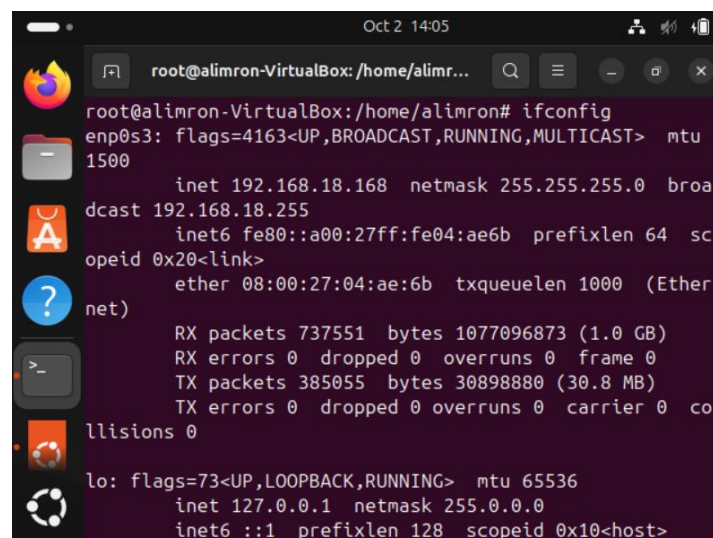
Setelah menyelesaikan lima langkah sebelumnya, Anda sudah dapat terhubung ke server dari jarak jauh. Namun, Anda dapat lebih meningkatkan keamanan koneksi dengan mengubah port koneksi default ke yang lain atau mengubah autentikasi kata sandi menjadi autentikasi kunci. Perubahan ini dan lainnya memerlukan pengeditan berkas konfigurasi SSH.

```
sudo cp /etc/ssh/sshd_config /etc/ssh/sshd_config.initial
```

```
alimron@alimron-VirtualBox:~$ sudo cp /etc/ssh/sshd_conf
ig /etc/ssh/sshd_config.initial
alimron@alimron-VirtualBox:~$ sudo nano /etc/ssh/sshd_co
nfig
```

Mencoba ping linux melaui cmd windows

192.168.18.168



```
Oct 2 14:05
root@alimron-VirtualBox: /home/alimr...
root@alimron-VirtualBox:/home/alimron# ifconfig
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu
1500
    inet 192.168.18.168 netmask 255.255.255.0 broa
dcast 192.168.18.255
    inet6 fe80::a00:27ff:fe04:ae6b prefixlen 64 sc
opeid 0x20<link>
    ether 08:00:27:04:ae:6b txqueuelen 1000 (Ether
net)
    RX packets 737551 bytes 1077096873 (1.0 GB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 385055 bytes 30898880 (30.8 MB)
    TX errors 0 dropped 0 overruns 0 carrier 0 co
llisions 0
lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
```

Cmd

Berhasil

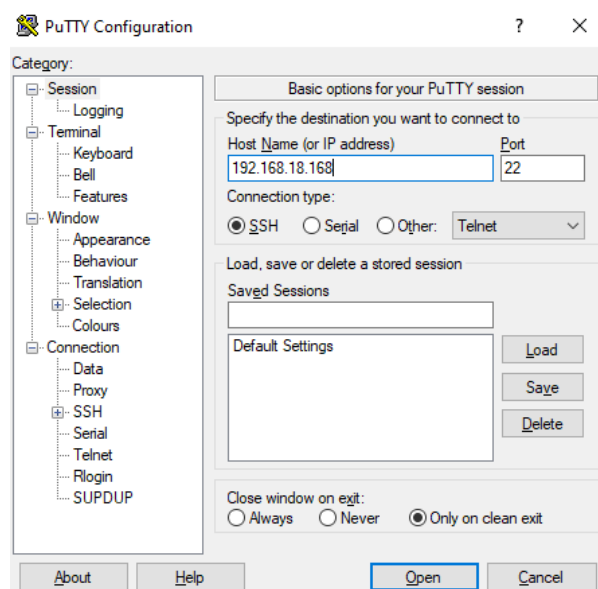
```
C:\Users\HP>ping 192.168.18.168

Pinging 192.168.18.168 with 32 bytes of data:
Reply from 192.168.18.168: bytes=32 time=5ms TTL=64
Reply from 192.168.18.168: bytes=32 time<1ms TTL=64
Reply from 192.168.18.168: bytes=32 time<1ms TTL=64
Reply from 192.168.18.168: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.18.168:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 5ms, Average = 1ms
```

Menggunakan putyy

192.168.18.168



Putyy

Berhasil

```
root@alimron-VirtualBox: /home/alimron
login as: alimron
alimron@192.168.18.168's password:
Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 6.8.0-31-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/pro

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

*** System restart required ***

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

alimron@alimron-VirtualBox:~$ sudo su
[sudo] password for alimron:
root@alimron-VirtualBox:/home/alimron#
```