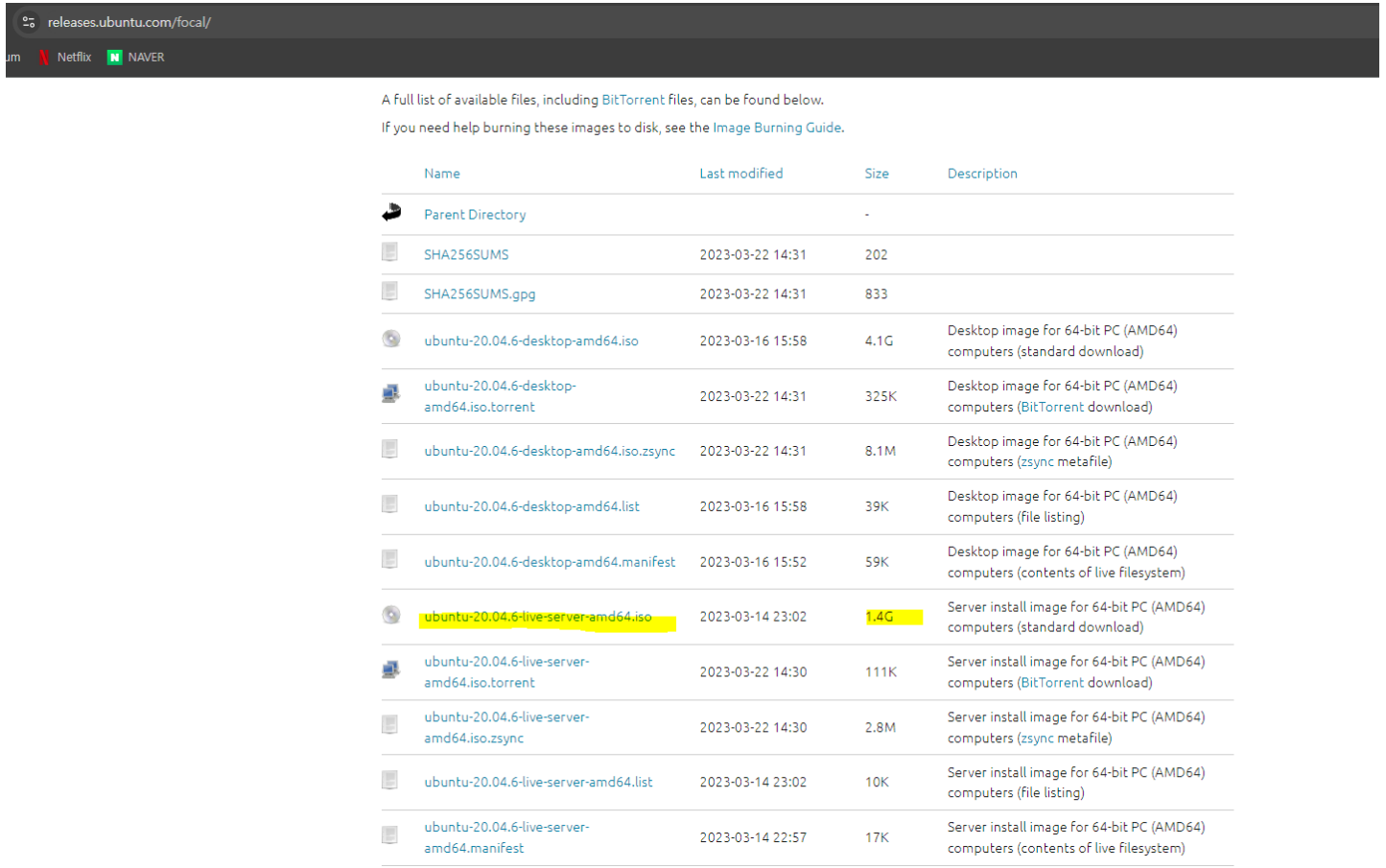
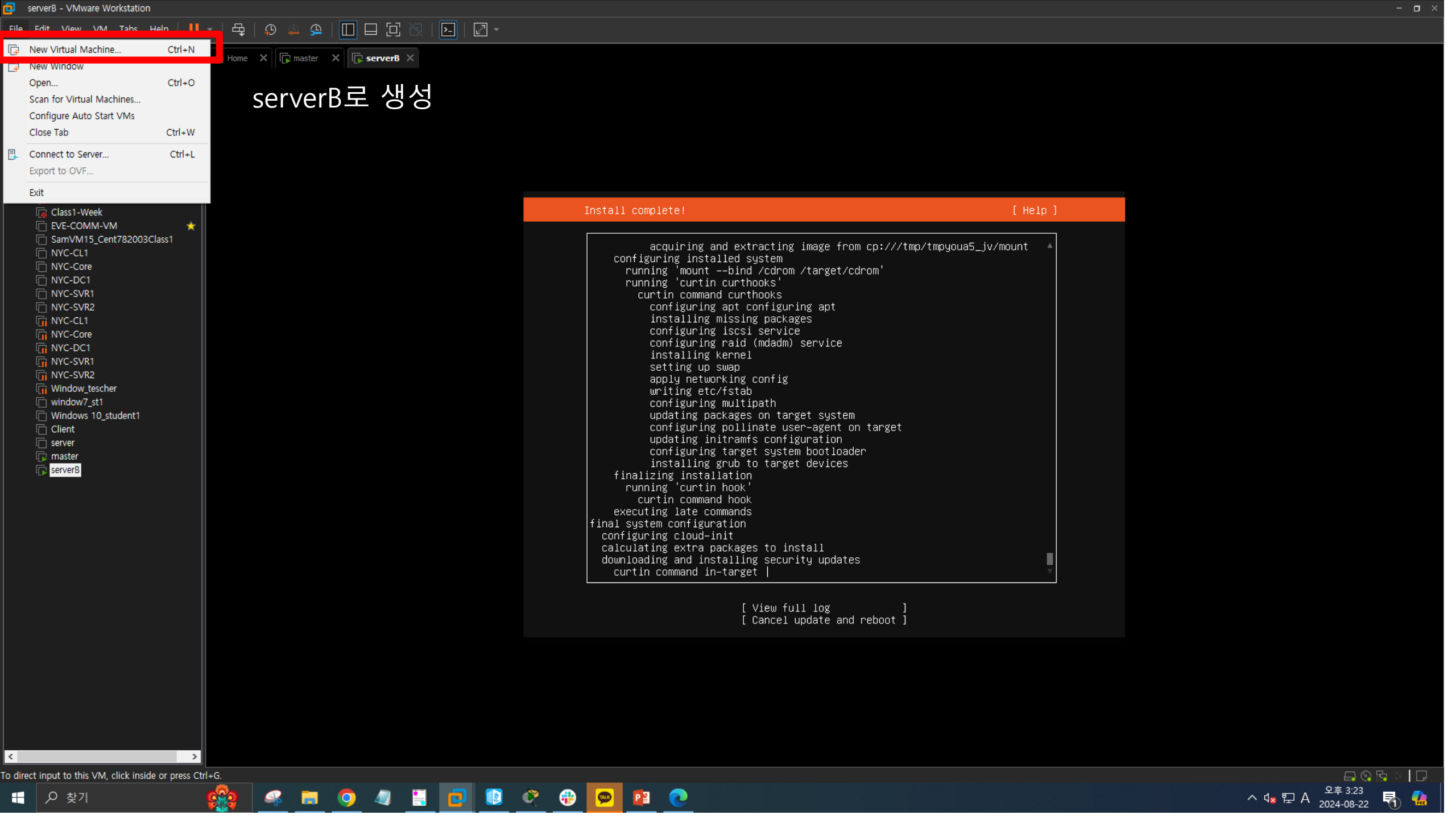
일일업무보고
20240822

DHCP 서버OS설치

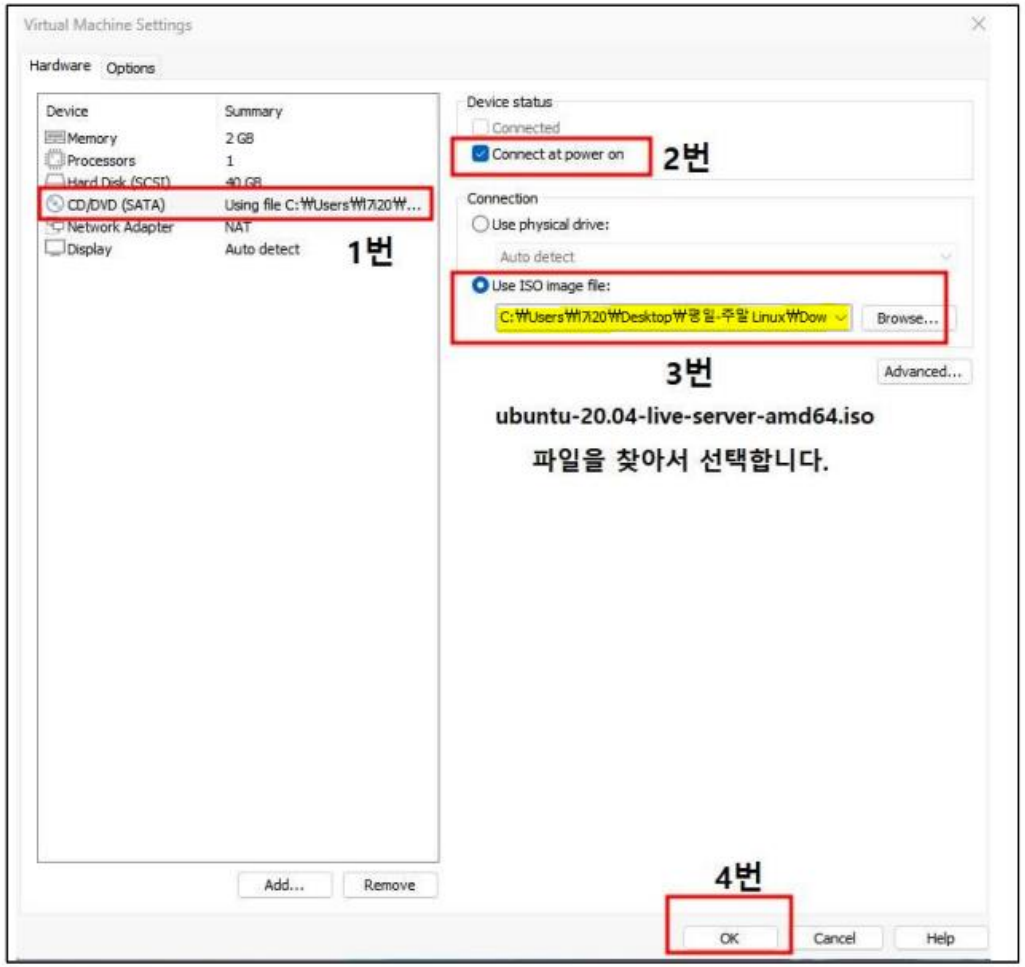
DHCP-Server OS 설치



사이트 들어가서 다운로드

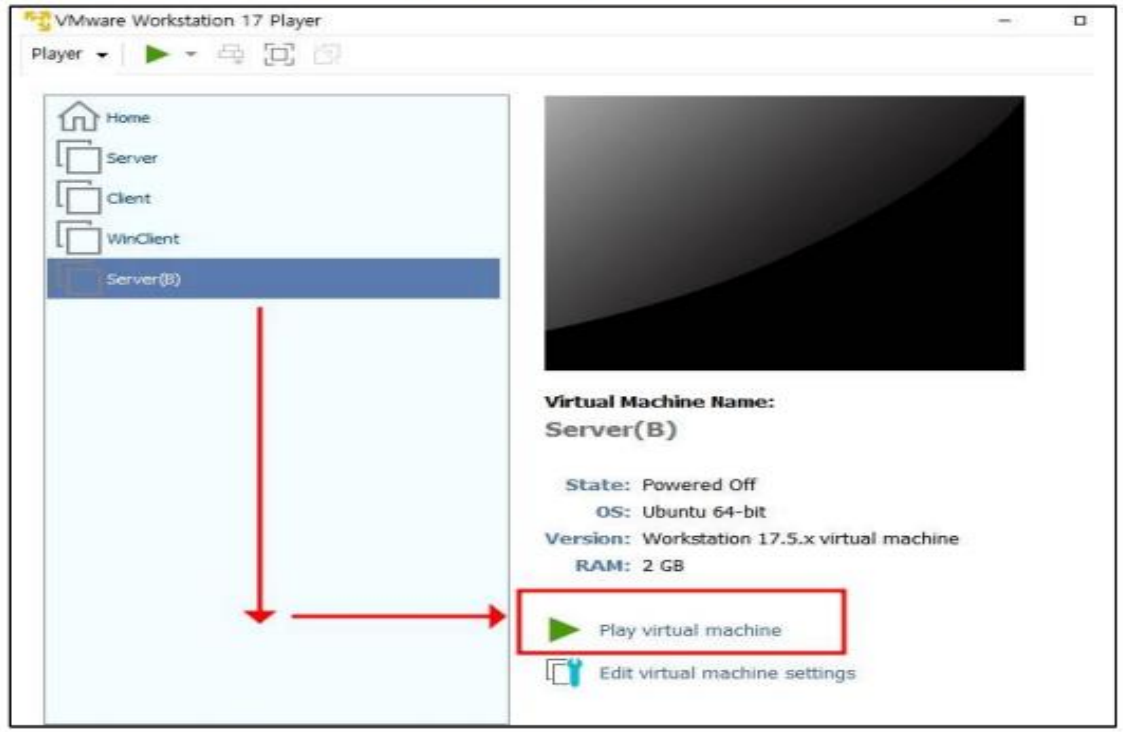

serverB - VMware Workstation
File Edit View VM Tabs Help
New Virtual Machine... Ctrl+N
New Window
Open... Ctrl+O
Scan for Virtual Machines...
Configure Auto Start VMs
Close Tab Ctrl+W
Connect to Server... Ctrl+L
Export to OVF...
Exit
Home
master
serverB
serverB로 생성
Class1-Week
EVE-COMM-VM
SamVM15_Cent782003Class1
NYC-CL1
NYC-Core
NYC-DC1
NYC-SVR1
NYC-SVR2
NYC-CL1
NYC-Core
NYC-DC1
NYC-SVR1
NYC-SVR2
Window_tescher
window7_st1
Windows 10_student1
Client
server
master
serverB
Install complete! [Help]
acquiring and extracting image from cp:///tmp/tmpyoua5_jv/mount
configuring installed system
running 'mount --bind /cdrom /target/cdrom'
running 'curtin curthooks'
curtin command curthooks
configuring apt configuring apt
installing missing packages
configuring iscsi service
configuring raid (mdadm) service
installing kernel
setting up swap
apply networking config
writing etc/fstab
configuring multipath
updating packages on target system
configuring pollinate user-agent on target
updating initramfs configuration
configuring target system bootloader
installing grub to target devices
finalizing installation
running 'curtin hook'
curtin command hook
executing late commands
final system configuration
configuring cloud-init
calculating extra packages to install
downloading and installing security updates
curtin command in-target
[View full log]
[Cancel update and reboot]
To direct input to this VM, click inside or press Ctrl+G.
찾기
오후 3:23
2024-08-22

③ [CD/DVD] (SATA)를 선택하고, [Use ISO image file:]에서 앞서 파일 공유 해 주었던
ubuntu-20.04-live-server-amd64.iso 파일 위치를 선택하고 OK 클릭합니다.



Vmware들어가서
new
Vmware-workspace/serverB에
다운로드받은파일 옮기기

④ ▶Player virtual machine 메뉴를 클릭하고 설치를 시작합니다.



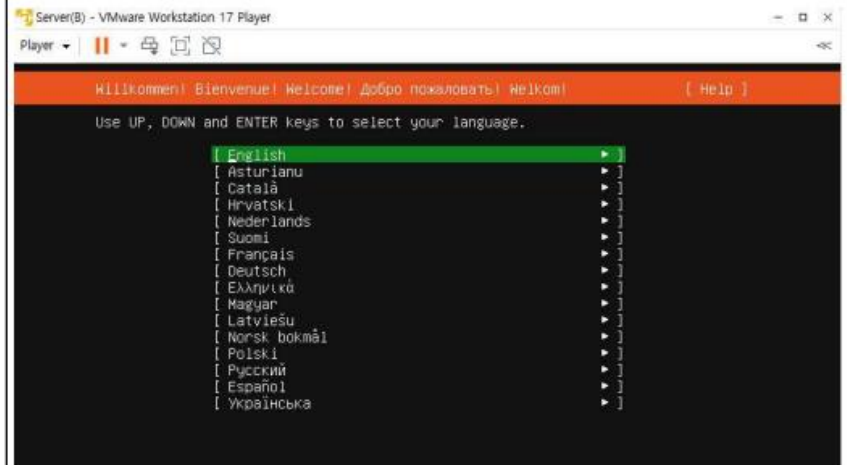
- ISO 설치파일을 불러들이면서 설치를 진행하는 것을 확인할 수 있습니다.

- 중간 중간 오류 메시지가 뜨더라도 긴장하지 말고 그냥 무시해도 됩니다.

- 단지 하드웨어 적인 체크를 진행하고, 이에 따른 오류메세지가 발생할 수 도 있다는 내용으로 확인하시면 됩니다.

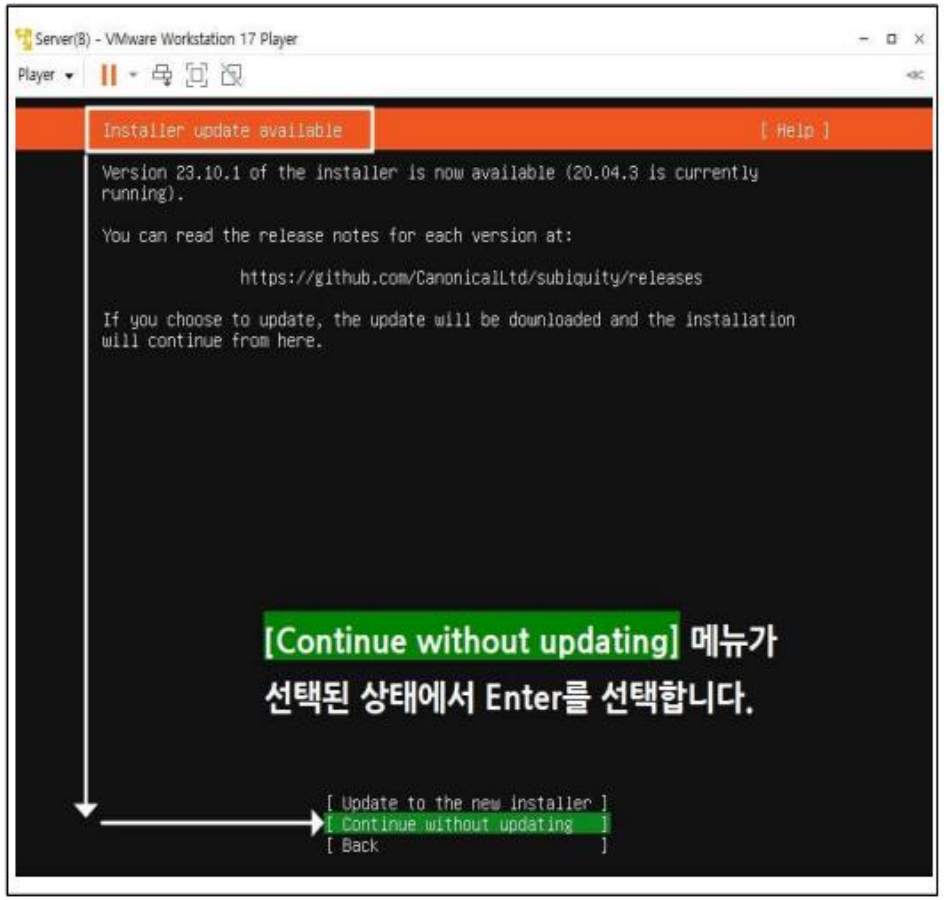
- 다음 아래와 같이 설치 화면을 확인할 수 있습니다.

1. 언어 선택 화면 : 기본값 English 영어가 선택된 상태에서 Enter를 선택합니다.



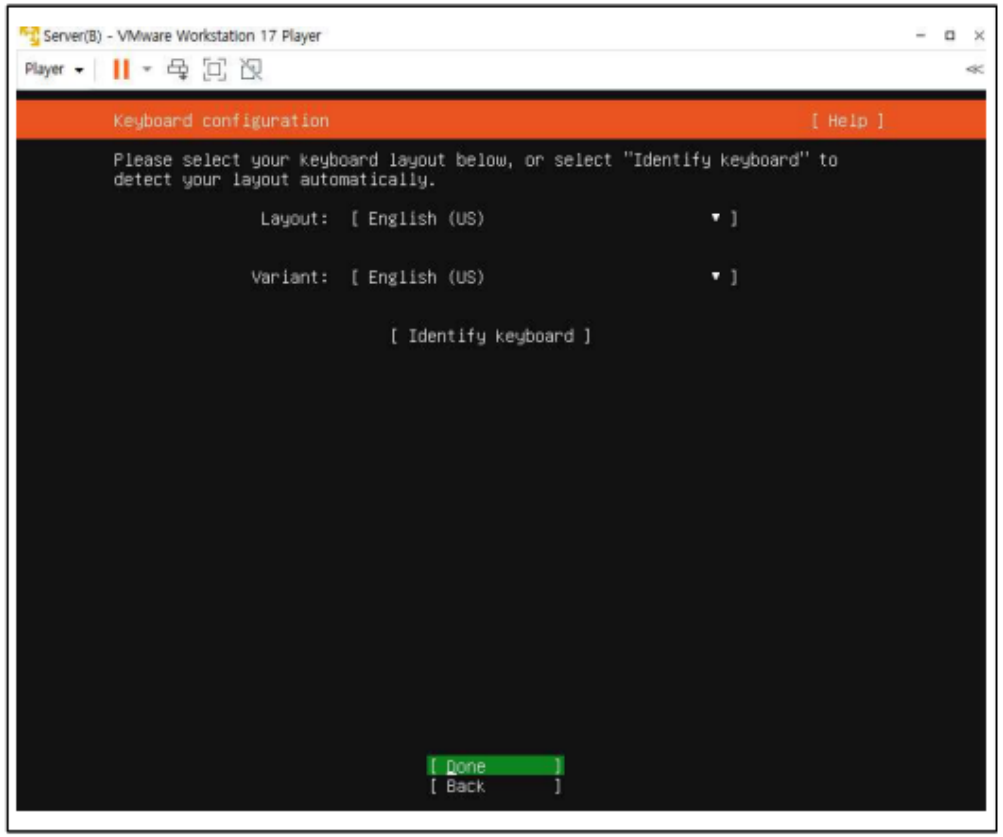
- Server(B)를 설치하는 과정은 오로지 텍스트모드 이기에, 방향키를 이용해서 메뉴를 이동하며 선택합니다.
-
- Server(B)에서는 한글사용이 없기에 영문으로 설치합니다.
-
- 만일 VMware와 호스트PC와의 이동을 위한 마우스 포인터가 잘 보이지 않을 경우 키보드에 ctrl키 + alt키를 동시에 눌러서 화면간에 이동을 진행하시면 됩니다.

2. Install update available 화면이 뜨면 [Continue without updating] 메뉴가 선택된 상태에서 Enter를 선택합니다.



3. Keyboard configuration 화면이 뜨면 영어 키보드가 선택된 기본설정이기에 그냥 ~

[Done] Enter를 선택합니다.

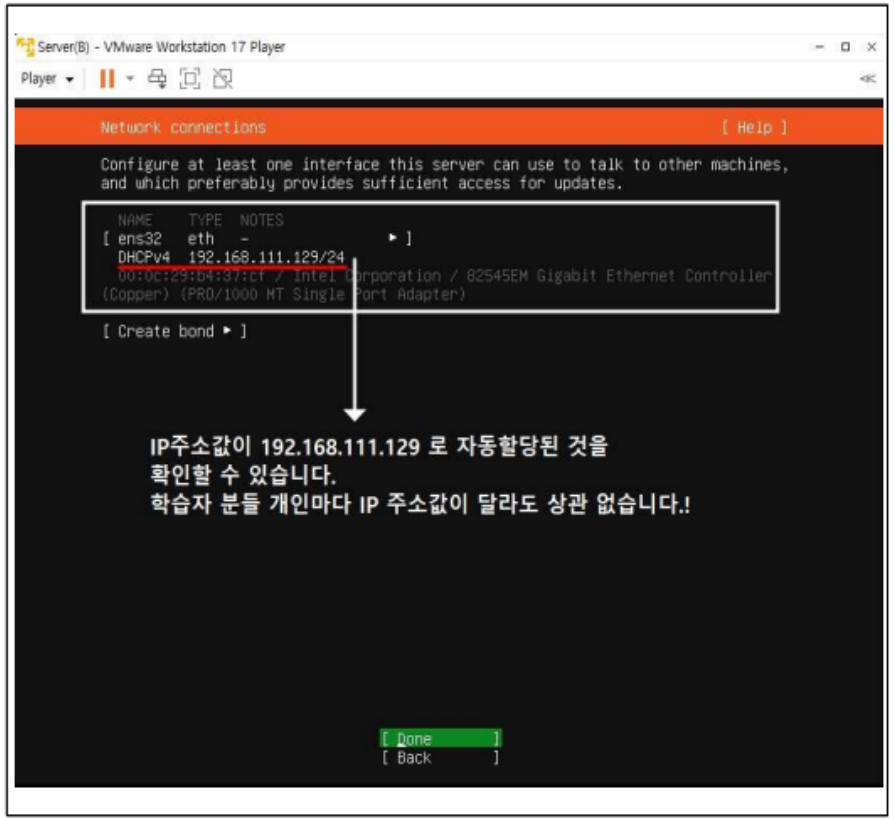


4. Network connection 화면이 뜨면 자동으로 IP 주소가 할당된 것을 확인 할 수 있습니다.

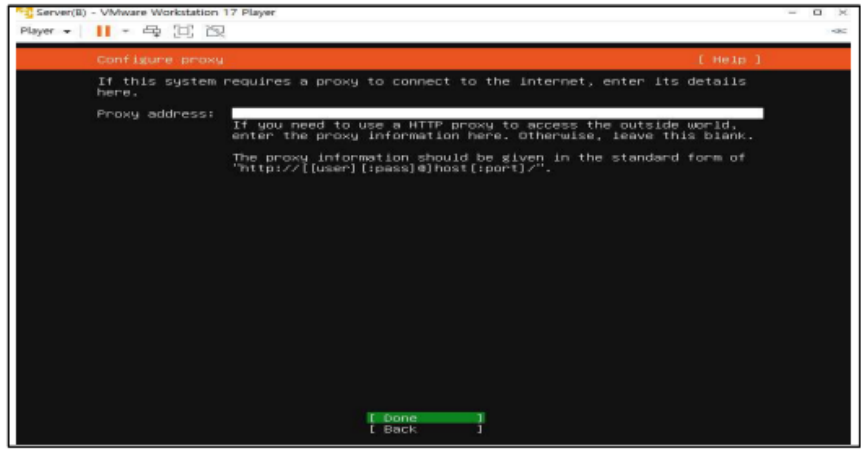
ens32 eth –

DHCPv4 192.168.111.129/24

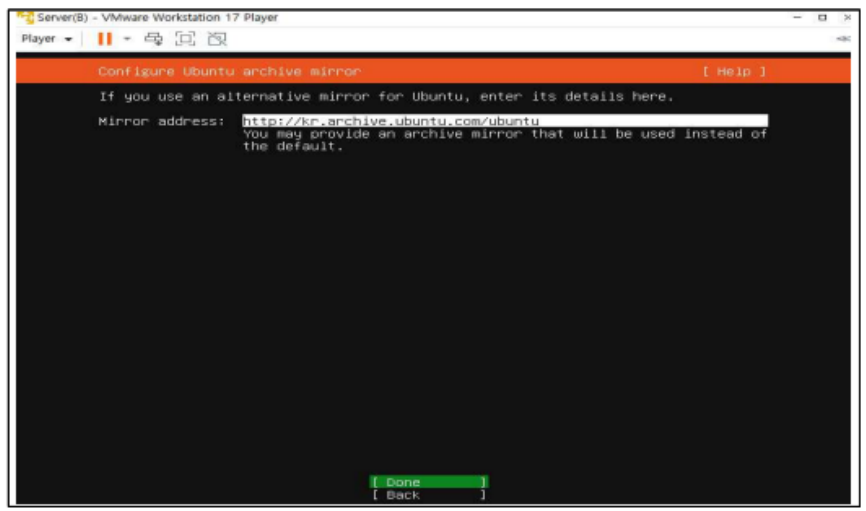
[Done] Enter를 선택합니다.



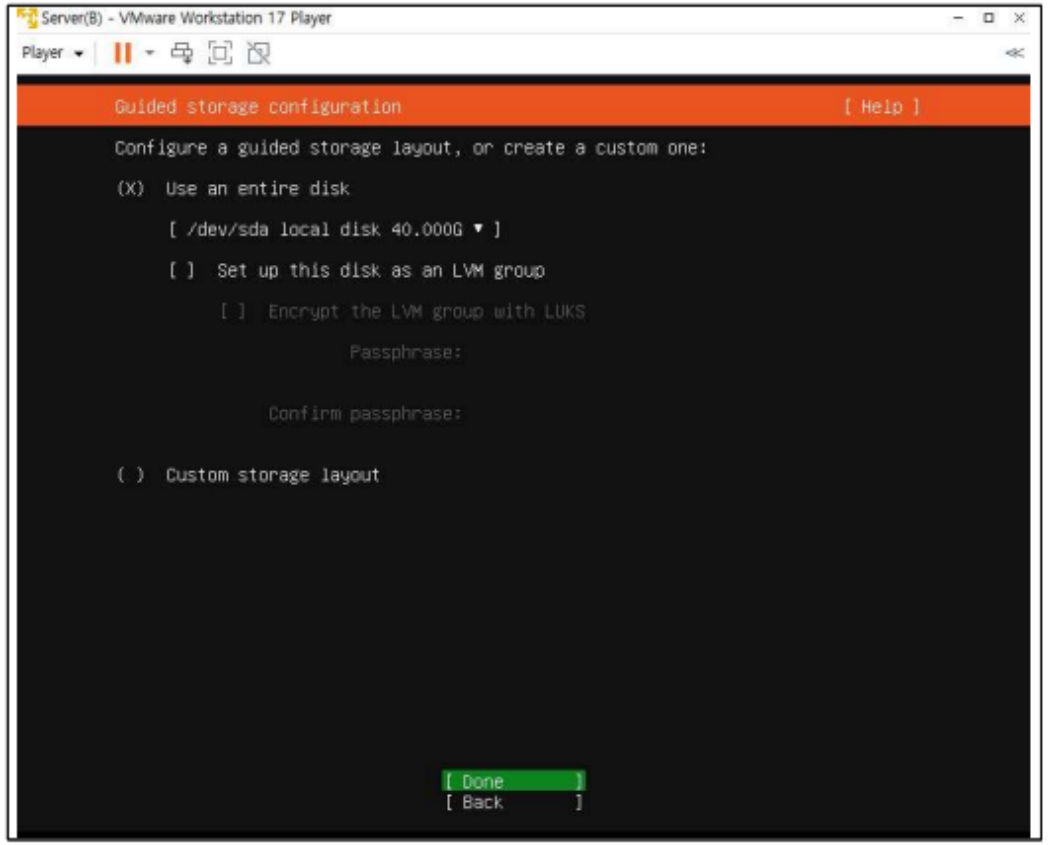
5. Configure proxy 화면이 뜨면 기본 설정에서 [Done] Enter를 선택합니다.



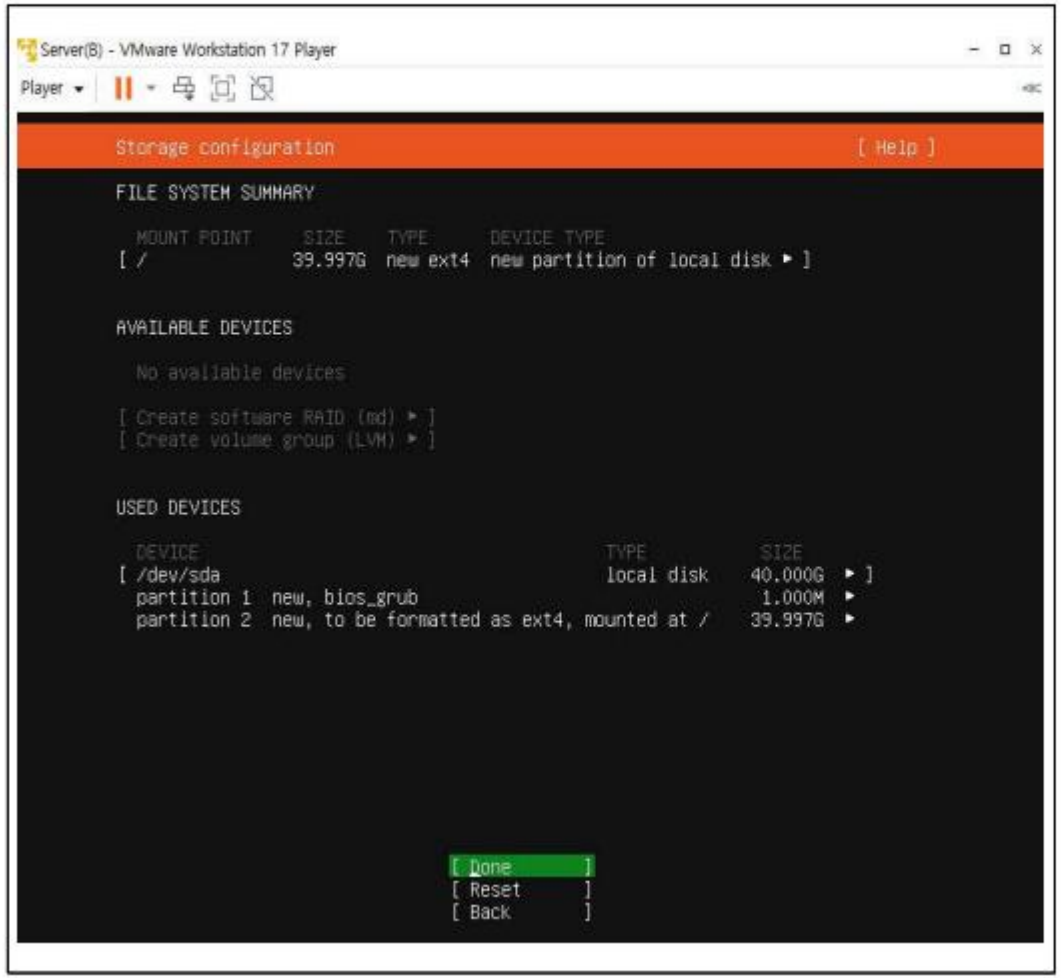
6. Configure Ubuntu archive mirror 주소 화면이 뜨면 기본 설정에서 [Done] Enter를 선택합니다.



7. Guided storage configation 화면이 뜨면 기본 설정에서 키보드에 Tab키를 4회정도 눌러서 [Done] 부분으로 이동하면 Enter를 선택합니다.

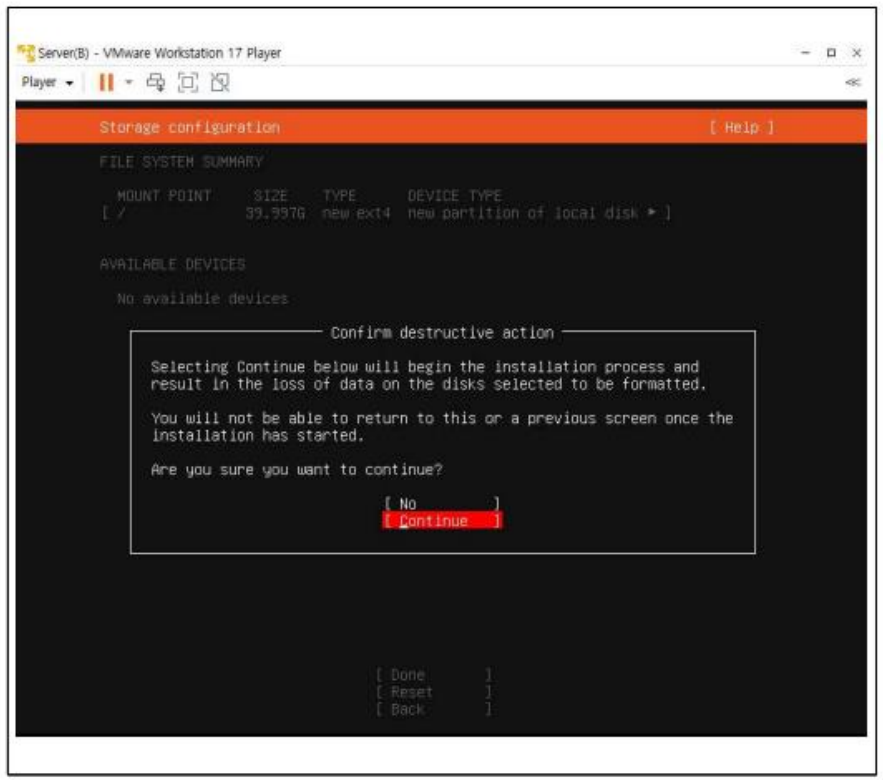


8. Storage configation 화면이 뜨면 기본 설정 [Done] 부분에서 Enter를 선택합니다.



9. Storage configation 화면 가운데에 다음과 같이

Confirm destructive action 화면이 뜨면 Tab키 1회정도 눌러서 [Continue] 부분에서 Enter를 선택합니다.



10. Profile Setup 화면이 뜨면 아래 내용을 각 칸을 채우고 칸을 이동할때는 Tab키를 눌러서 이동 합니다. 다 채워지면 [Done] 부분에서 Enter를 선택합니다.

- 다음 아래 내용으로 각 칸을 채워 줍니다.

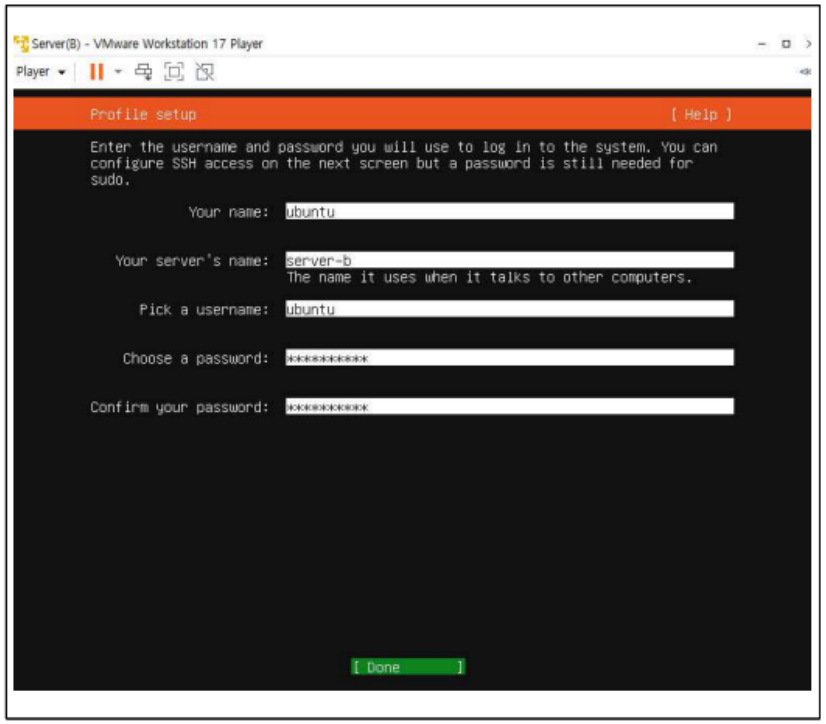
Youer name : ~~ubuntu~~

Your server's name : server-b

Pick a username : ~~ubuntu~~

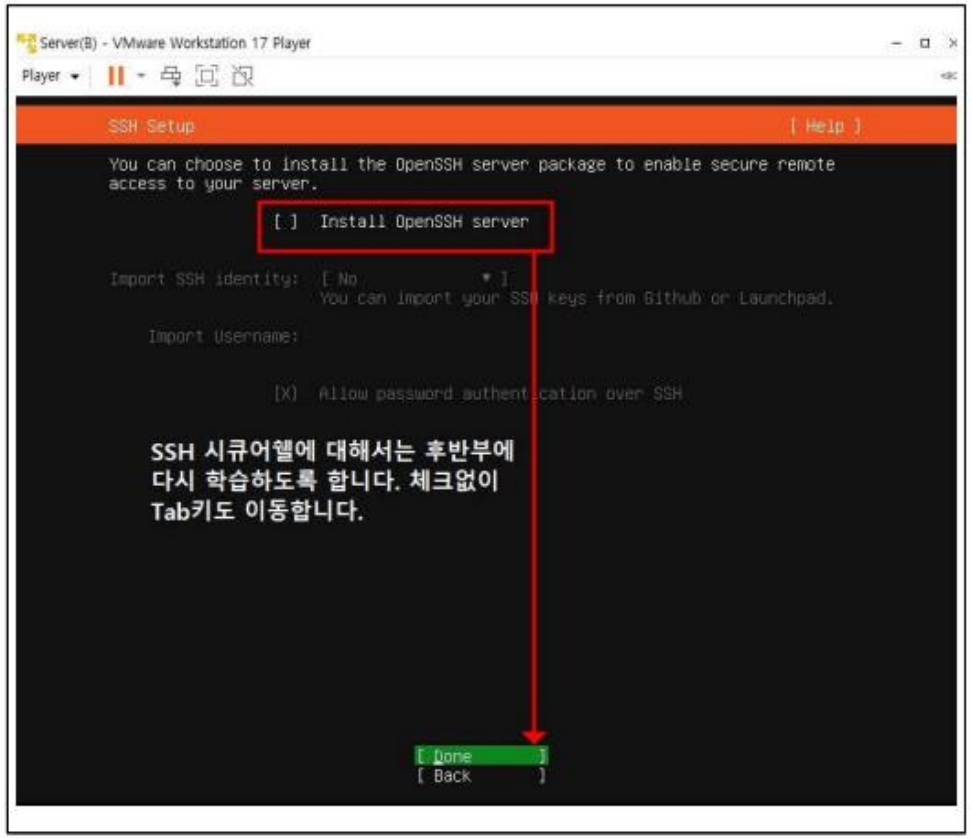
Choose a password : ~~ubuntu1234~~

Confirm your password : ~~ubuntu1234~~



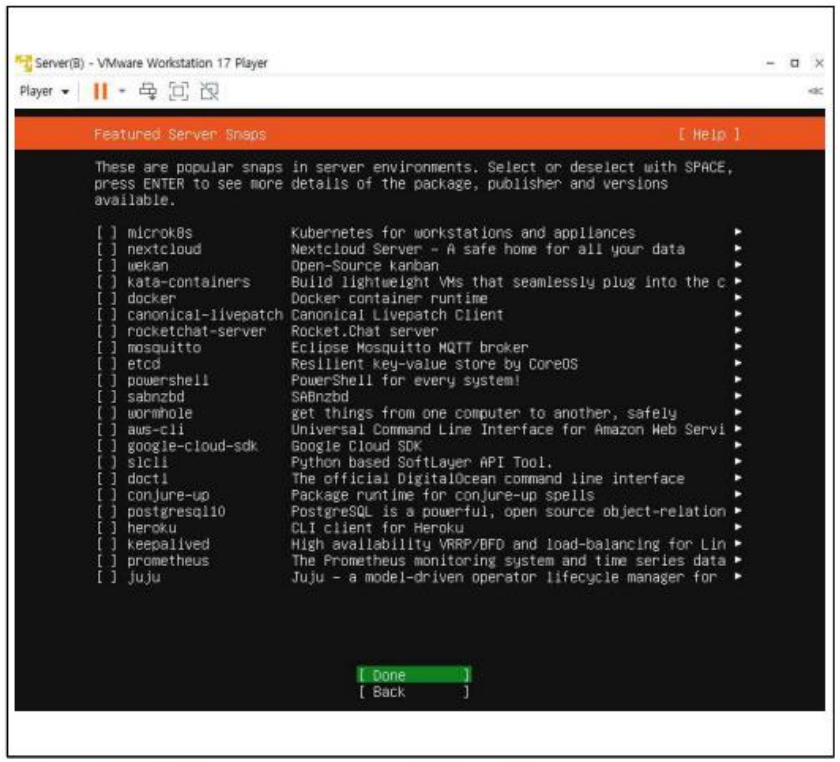
Your name : guru
Pick a username : guru
Choose a password : guru
Confirm your password: guru
설정

11. SSH Setup 화면이 뜨면 Tab키를 눌러서 [Done] 부분으로 이동 후 Enter를 선택합니다.

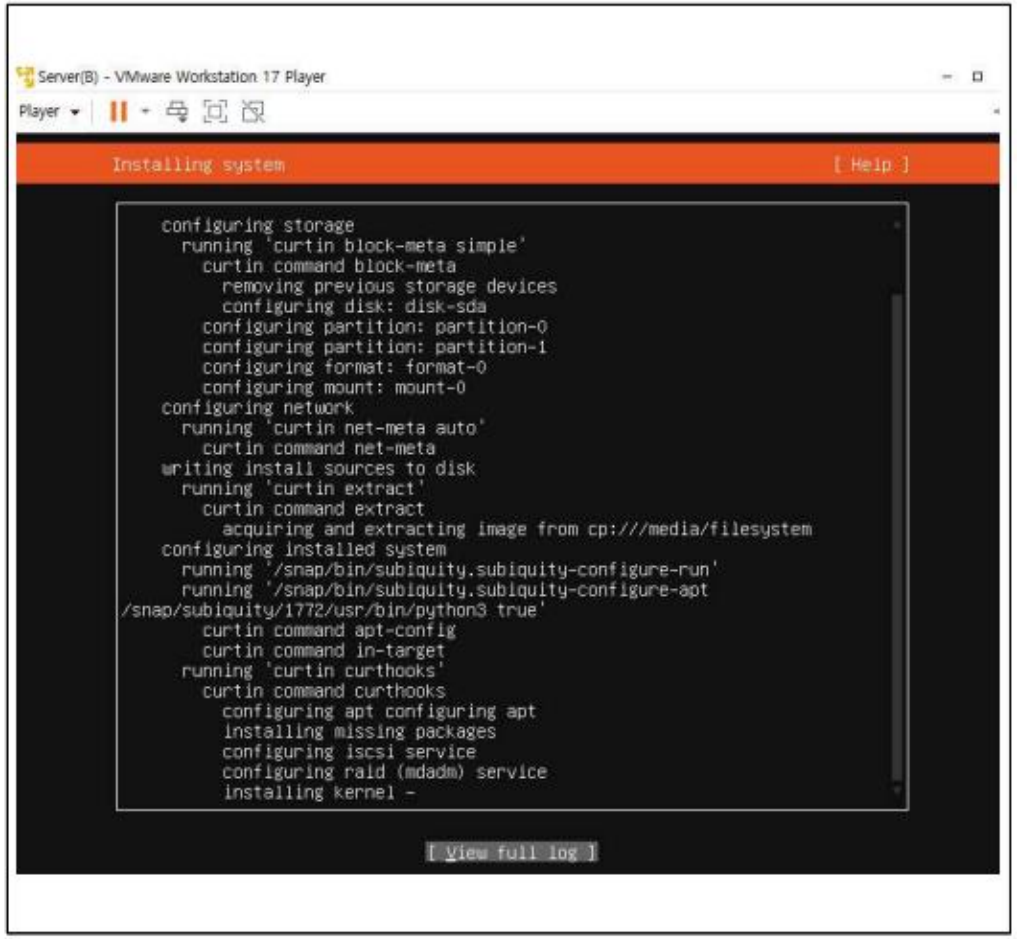


12. Featured Server Snaps 화면이 뜨면 Tab키를 눌러서 [Done] 부분으로 이동 후 Enter를 선택합니다.

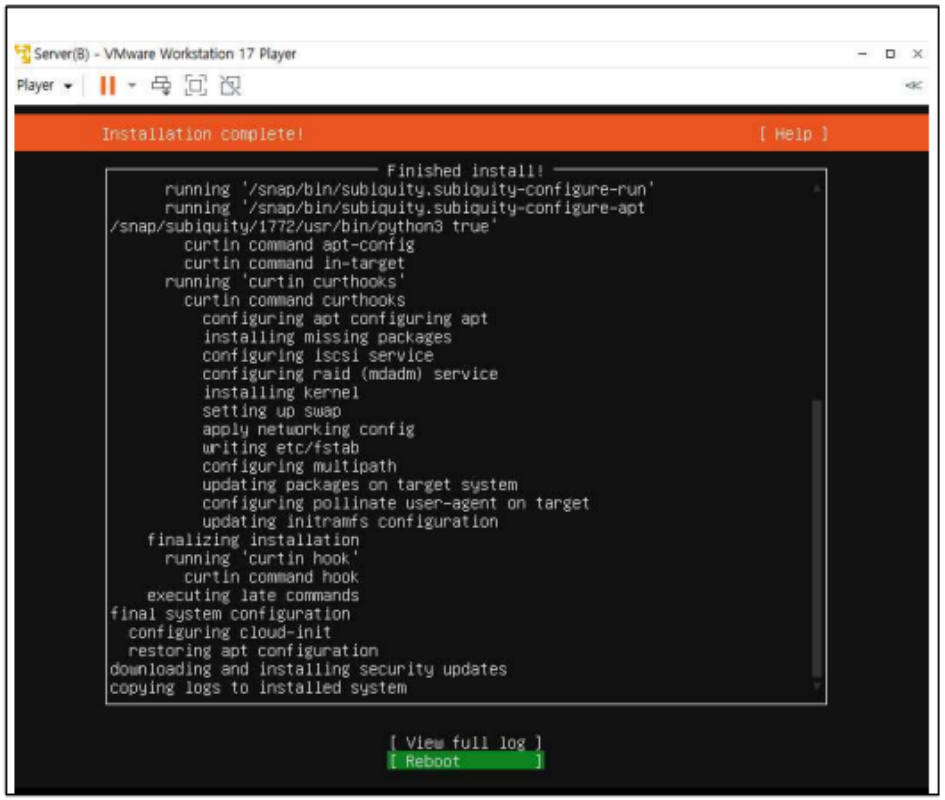
이 메뉴에서는 추가하고자 하는 프로그램을 선택하는 부분이나 선택없이 기본으로 진행하도록 합니다.



13. Installing system 화면이 뜨면서 설치진행 모습을 확인할 수 있습니다.



- 설치가 완료 되면, 맨 아래에 [Reboot] 라는 선택 버튼이 활성화 됩니다.

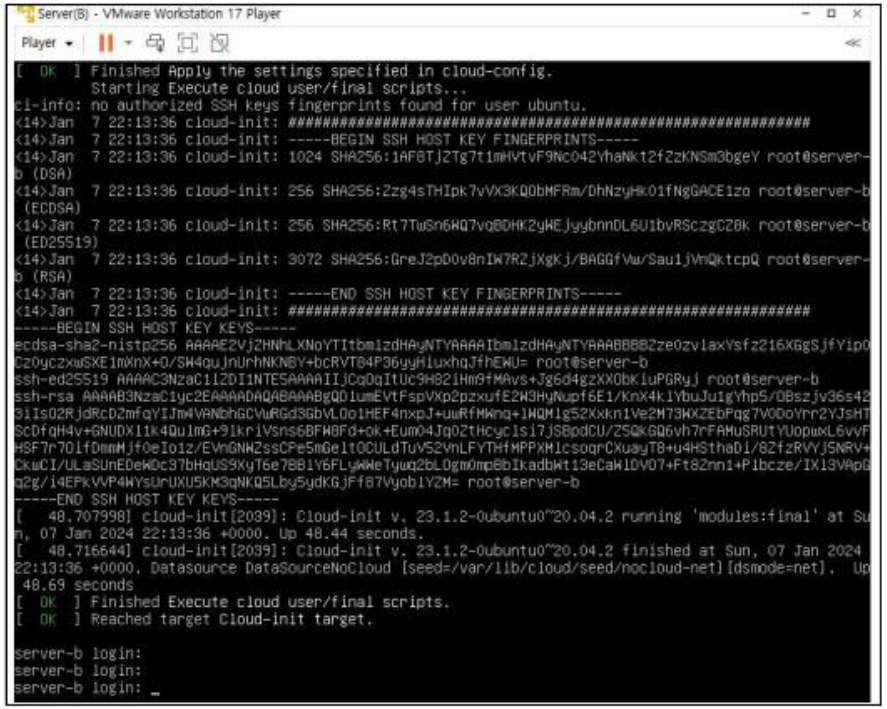


- 컴퓨터가 재부팅 후 “Please remove the installtion medium, then press ENTER” 메시지가 나오면 Enter키를 누릅니다.

- 설치DVD를 제거하라는 메시지인데, VMware가 자동으로 제거합니다.

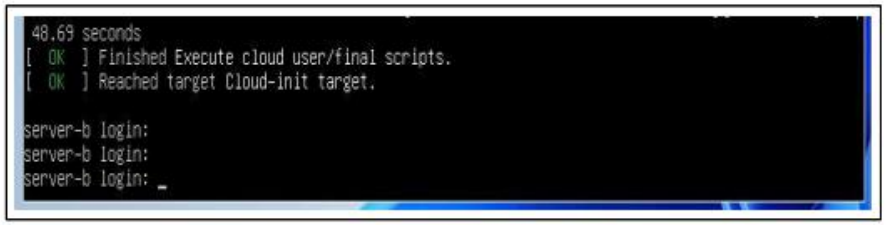
04-2. Server(B) 우분투 리눅스 설치 종료 및 로그인 하기

① Server(B)를 설치하고 재부팅하고난 다음에는 몇분동안 시스템에 대한 점검을 하고, 최종적인 로그인 화면을 띄워주기 전에 [OK] 라는 메시지가 나올때까지 기다려 줍니다.



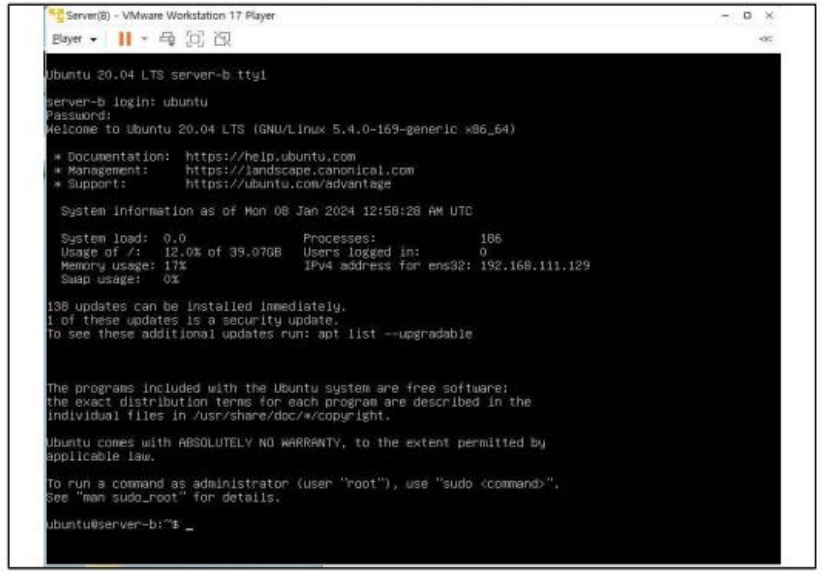
server-b login : guru

②server-b login: 프롬프트가 뜨면 이제부터 설치시 작성했던 암호를 입력하고 로그인 합니다.



server-b login : ubuntu [아이디 입력]

Password : ~~ubuntu1234 [비번 입력~~

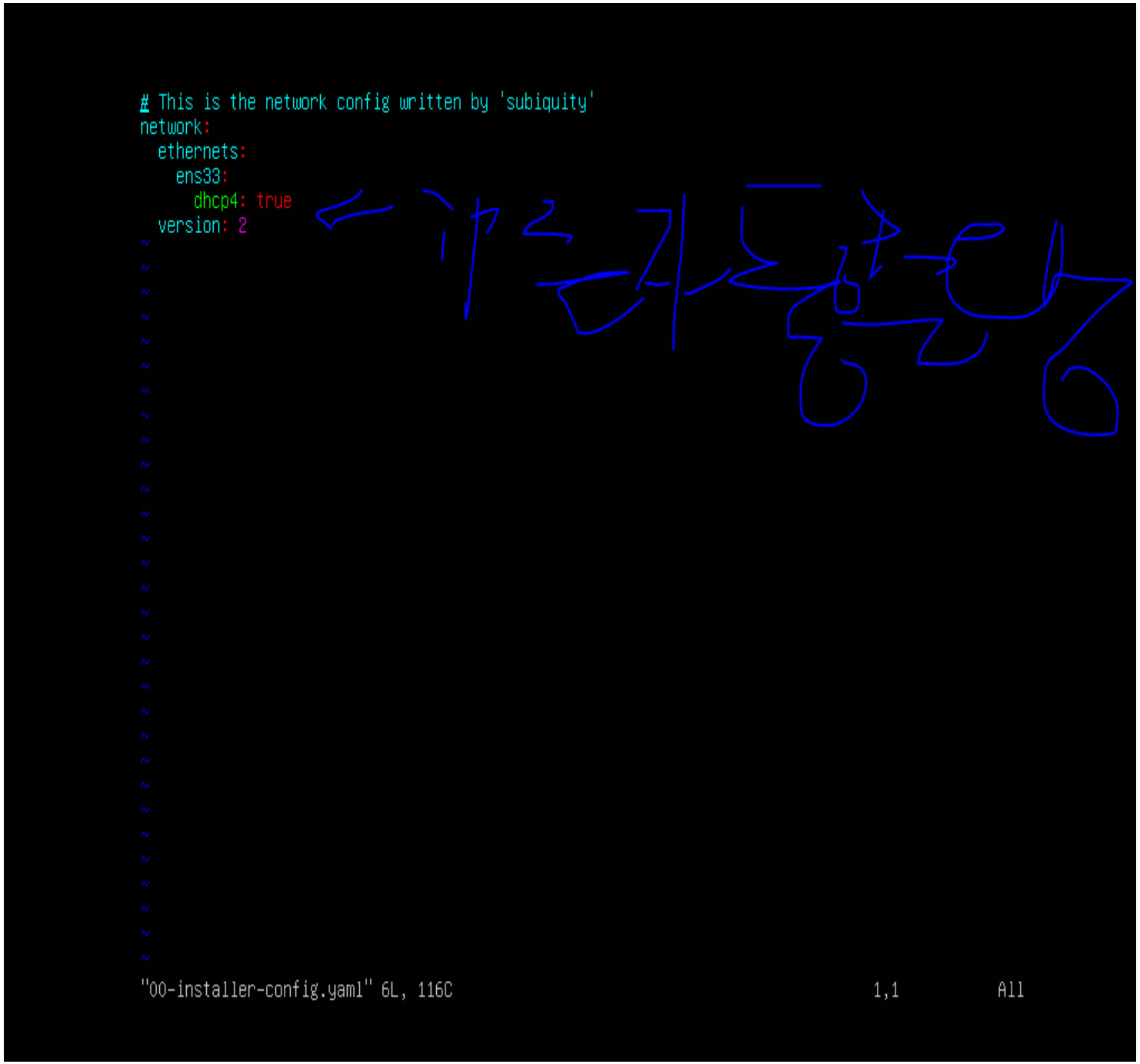


- 이제 로그인이 되었으면, 프롬프트가 server-b:~$ 로 보일겁니다.
-
- 특히 앞서 로그인을 위한 아이디 까지는 눈으로 보였지만, 패스워드에서는 보이지 않는 부분은 텍스트모드에서의 보안성으로 인하여 보이지 않는 겁니다.
-
- 텍스트 모드로 부팅이 된 모습이 익숙하지 않겠지만 앞에서 설치해 보았던 우분투 20.04LTD의 초기 소프트웨어만 설치되도록 설정해 보겠습니다.
-

password: guru

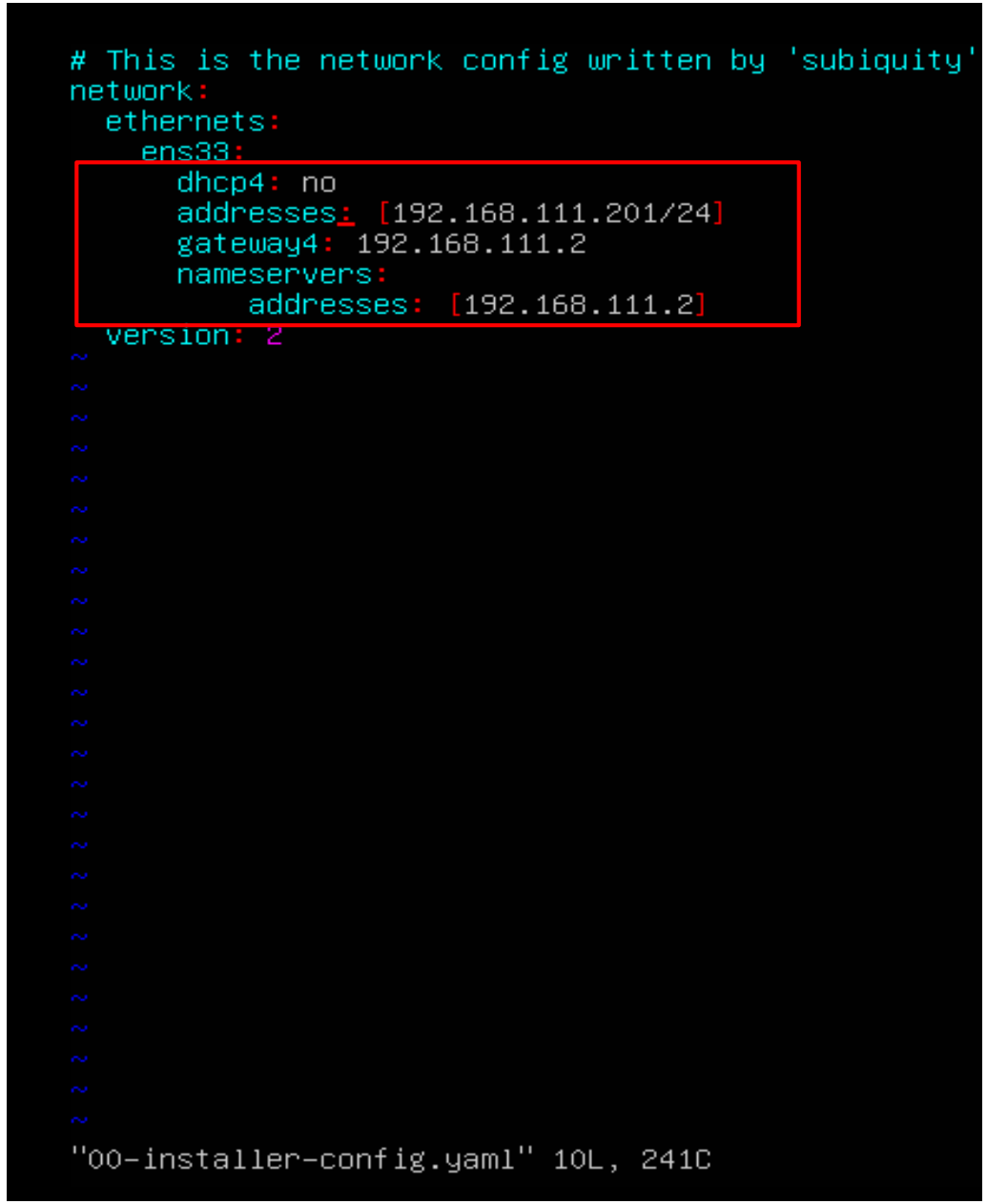
```
Setting up libwrap0:amd64 (7.6.q-30) ...
Setting up ncurses-term (6.2-0ubuntu2.1) ...
Setting up openssh-server (1:8.2p1-4ubuntu0.11) ...

Creating config file /etc/ssh/sshd_config with new version
Created symlink /etc/systemd/system/sshd.service → /lib/systemd/system/ssh.service.
Created symlink /etc/systemd/system/multi-user.target.wants/ssh.service → /lib/systemd/system/ssh.se
rvice.
rescue-ssh.target is a disabled or a static unit, not starting it.
Processing triggers for ufw (0.36-6ubuntu1) ...
Processing triggers for systemd (245.4-4ubuntu3.20) ...
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for libc-bin (2.31-0ubuntu9.16) ...
root@server-b:~# systemctl enable ssh
Synchronizing state of ssh.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable ssh
root@server-b:~# systemctl status ssh
● ssh.service - OpenBSD Secure Shell server
     Loaded: loaded (/lib/systemd/system/ssh.service; enabled; vendor preset: enabled)
     Active: active (running) since Thu 2024-08-22 06:41:29 UTC; 14s ago
       Docs: man:sshd(8)
             man:sshd_config(5)
   Main PID: 3218 (sshd)
      Tasks: 1 (limit: 4556)
     Memory: 1.3M
     CGroup: /system.slice/ssh.service
             └─3218 sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups

Aug 22 06:41:29 server-b systemd[1]: Starting OpenBSD Secure Shell server...
Aug 22 06:41:29 server-b sshd[3218]: Server listening on 0.0.0.0 port 22.
Aug 22 06:41:29 server-b sshd[3218]: Server listening on :: port 22.
Aug 22 06:41:29 server-b systemd[1]: Started OpenBSD Secure Shell server.
root@server-b:~# cd /etc/netplan
root@server-b:/etc/netplan# ls -l
total 4
-rw-r--r-- 1 root root 116 Aug 22 06:12 00-installer-config.yaml
root@server-b:/etc/netplan# _
```

cd /etc/netplan 입력
ls –i
nano 00-installer-config.yaml 입력



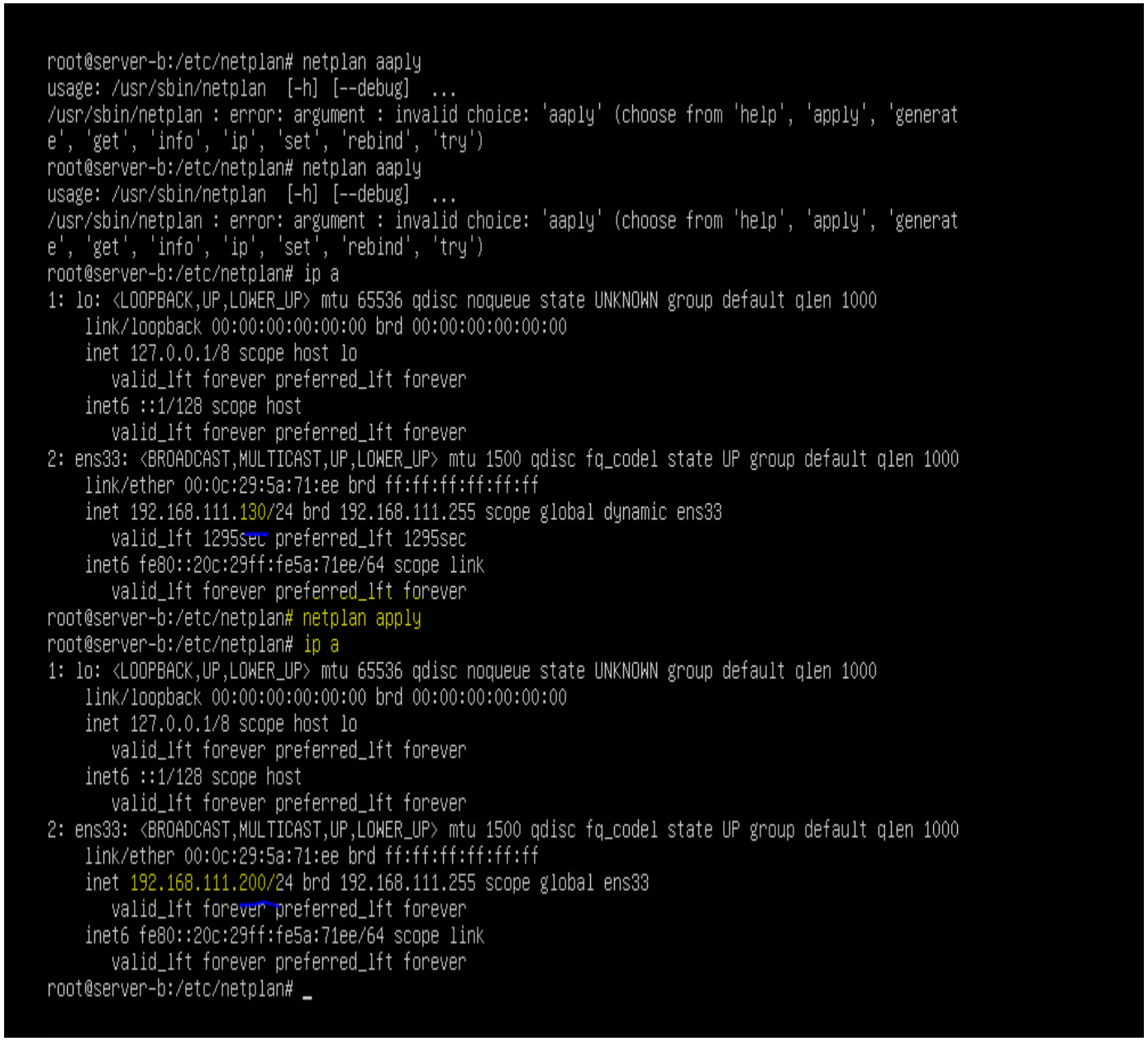
들어가면 초기화면이

ens33:
  dhcp4: true 로 되어있다
이 것은 ip를 자동할당으로 받겠다는 의미



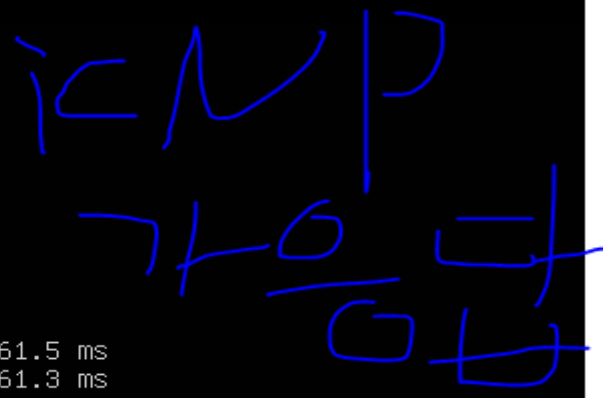
화면처럼 설정하기
중요!
nameservers:
addresses:
처럼 꼭 names 밑 빈칸에 addresses 입력하기!

입력 끝나면
:wq! 입력

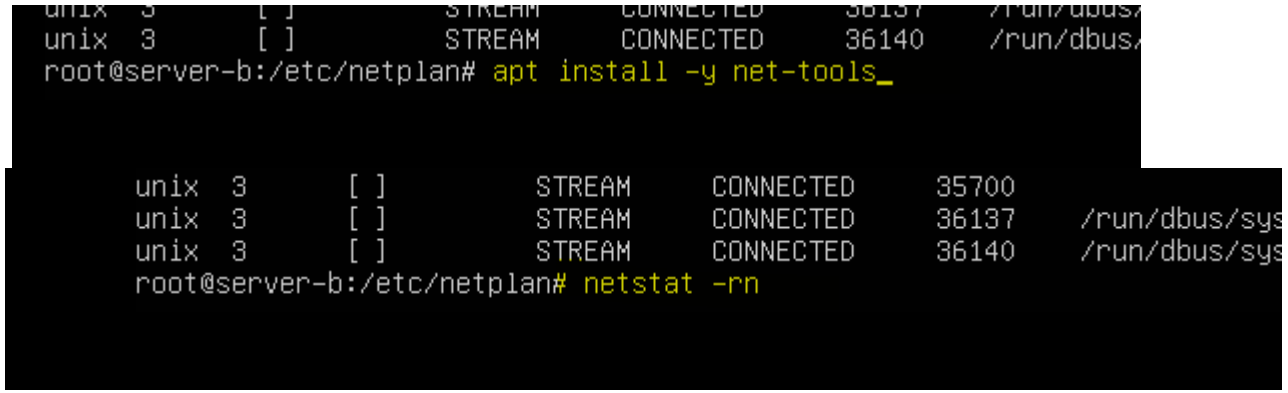


나와서 netplan apply 입력후
ip a 로 해서
ip주소가 바뀌었는지 확인

```
      dhcp4: no
      addresses: [192.168.111.200/24]
      gateway4: 192.168.111.2
      nameservers:
          addresses: [192.168.111.2]
  version: 2
root@server-b:/etc/netplan#
root@server-b:/etc/netplan#
root@server-b:/etc/netplan#
root@server-b:/etc/netplan# ping 8.8.8.8
PING 8.8.8.8 (8.8.8.8) 56(84) bytes of data.
64 bytes from 8.8.8.8: icmp_seq=1 ttl=128 time=61.5 ms
64 bytes from 8.8.8.8: icmp_seq=2 ttl=128 time=61.3 ms
64 bytes from 8.8.8.8: icmp_seq=3 ttl=128 time=60.9 ms
64 bytes from 8.8.8.8: icmp_seq=4 ttl=128 time=61.1 ms
64 bytes from 8.8.8.8: icmp_seq=5 ttl=128 time=60.4 ms
64 bytes from 8.8.8.8: icmp_seq=6 ttl=128 time=82.0 ms
64 bytes from 8.8.8.8: icmp_seq=7 ttl=128 time=60.3 ms
64 bytes from 8.8.8.8: icmp_seq=8 ttl=128 time=61.1 ms
64 bytes from 8.8.8.8: icmp_seq=9 ttl=128 time=60.5 ms
64 bytes from 8.8.8.8: icmp_seq=10 ttl=128 time=60.8 ms
^C
--- 8.8.8.8 ping statistics ---
10 packets transmitted, 10 received, 0% packet loss, time 9015ms
rtt min/avg/max/mdev = 60.317/62.979/82.018/6.356 ms
root@server-b:/etc/netplan# ping -c 5 8.8.8.8
PING 8.8.8.8 (8.8.8.8) 56(84) bytes of data.
64 bytes from 8.8.8.8: icmp_seq=1 ttl=128 time=84.0 ms
64 bytes from 8.8.8.8: icmp_seq=2 ttl=128 time=60.4 ms
64 bytes from 8.8.8.8: icmp_seq=3 ttl=128 time=61.0 ms
64 bytes from 8.8.8.8: icmp_seq=4 ttl=128 time=61.1 ms
64 bytes from 8.8.8.8: icmp_seq=5 ttl=128 time=61.0 ms

--- 8.8.8.8 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4006ms
rtt min/avg/max/mdev = 60.365/65.474/83.957/9.245 ms
root@server-b:/etc/netplan#
```



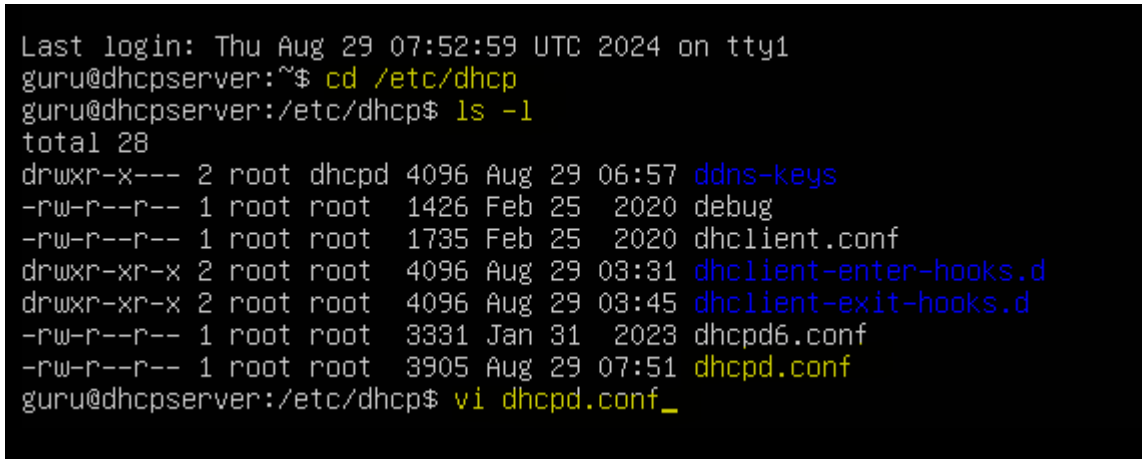
ping 8.8.8.8의미는
icmp가 응답한다는 의미이다



apt install –y net –tools 설치

netstat –rn 입력

apt install –y isc-dhcp-server 설치



설치후 systemctl restart/enable/status
isc-dhcp-server 실행후

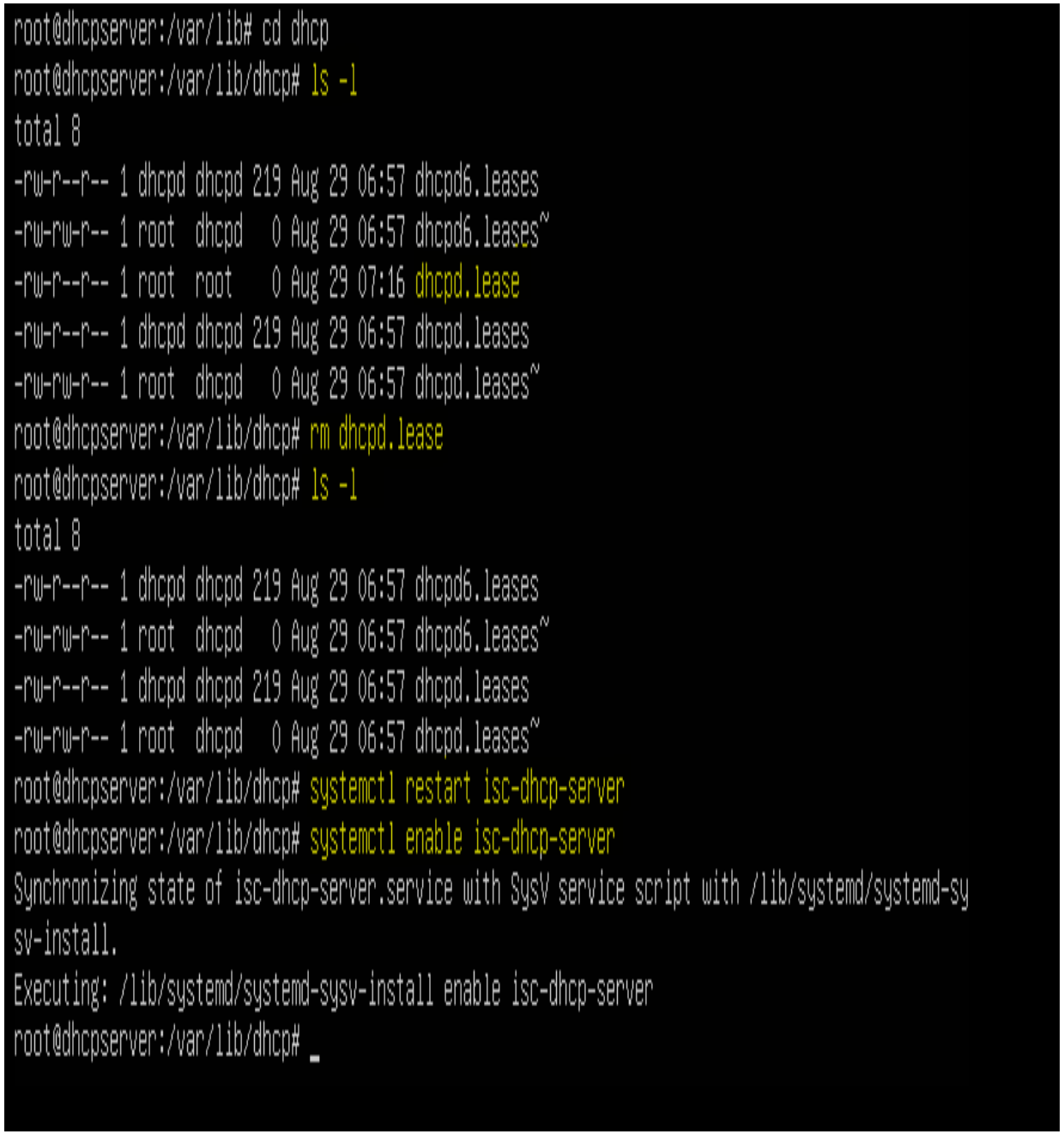
cd /etc/dhcp에서 vi dhcpd.conf 들어가기

```
#}

# You can declare a class of clients and then do address allocation
# based on that.   The example below shows a case where all clients
# in a certain class get addresses on the 10.17.224/24 subnet, and all
# other clients get addresses on the 10.0.29/24 subnet.

#class "foo" {
#  match if substring (option vendor-class-identifier, 0, 4) = "SUNW";
#}

#shared-network 224-29 {
#  subnet 10.17.224.0 netmask 255.255.255.0 {
#    option routers rtr-224.example.org;
#  }
#  subnet 10.0.29.0 netmask 255.255.255.0 {
#    option routers rtr-29.example.org;
#  }
#  pool {
#    allow members of "foo";
#    range 10.17.224.10 10.17.224.250;
#  }
#  pool {
#    deny members of "foo";
#    range 10.0.29.10 10.0.29.230;
#  }
#}
subnet 192.168.111.0 netmask 255.255.255.0 {
        option routers 192.168.111.2;
        option subnet-mask 255.255.255.0;
   range dynamic-bootp 192.168.111.55 192.168.111.99;
        option domain-name-servers 8.8.8.8;
        default-lease-time 10000;
        max-lease-time 50000;
}
"dhcpd.conf" 119L, 3900C written
root@dhcpserver:/etc/dhcp# _
```

맨 밑에 부분에서 subnet { 내용 }부분 추가

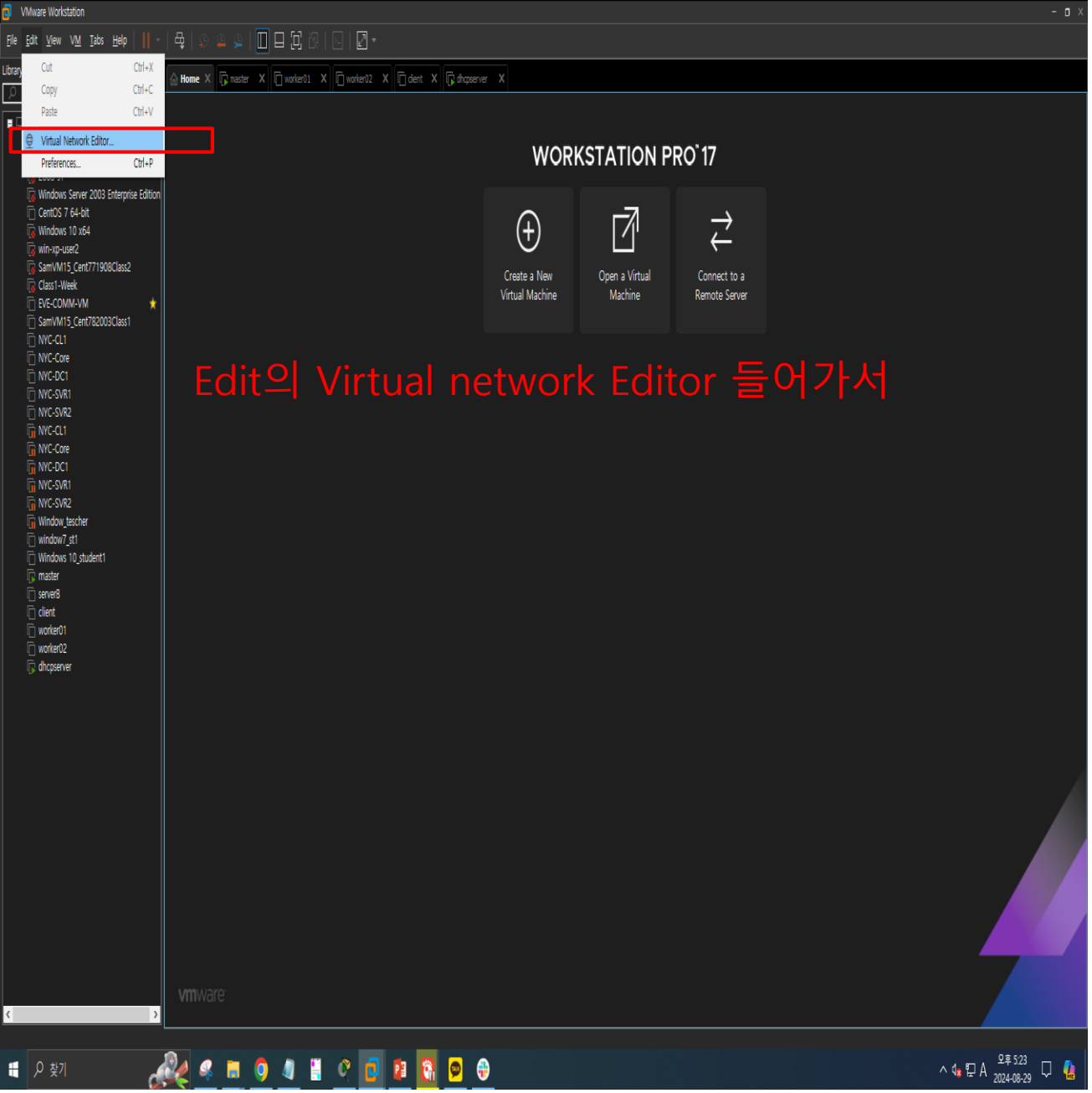
```
rvice.
rescue-ssh.target is a disabled or a static unit, not starting it.
Processing triggers for ufw (0.36-6) ...
Processing triggers for systemd (245.4-4ubuntu3.20) ...
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for libc-bin (2.31-0ubuntu9.16) ...
root@dhcpserver:/etc/netplan# systemctl restart ssh
root@dhcpserver:/etc/netplan# systemctl enable ssh
Synchronizing state of ssh.service with SysV service script with /lib/systemd/systemd-sysv-install
Executing: /lib/systemd/systemd-sysv-install enable ssh
root@dhcpserver:/etc/netplan# systemctl status ssh
● ssh.service - OpenBSD Secure Shell server
     Loaded: loaded (/lib/systemd/system/ssh.service; enabled; vendor preset: enabled)
     Active: active (running) since Thu 2024-08-29 07:13:32 UTC; 11s ago
       Docs: man:sshd(8)
             man:sshd_config(5)
   Main PID: 4404 (sshd)
      Tasks: 1 (limit: 4556)
     Memory: 1.3M
     CGroup: /system.slice/ssh.service
             └─4404 sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups

Aug 29 07:13:32 dhcpserver systemd[1]: Starting OpenBSD Secure Shell server...
Aug 29 07:13:32 dhcpserver sshd[4404]: Server listening on 0.0.0.0 port 22.
Aug 29 07:13:32 dhcpserver sshd[4404]: Server listening on :: port 22.
Aug 29 07:13:32 dhcpserver systemd[1]: Started OpenBSD Secure Shell server.
root@dhcpserver:/etc/netplan# touch /var/lib/dhcp/dhcpd.lease
root@dhcpserver:/etc/netplan# cd /var/lib
root@dhcpserver:/var/lib# cd dhcp
root@dhcpserver:/var/lib/dhcp# ls -l
total 8
-rw-r--r-- 1 dhcpd dhcpd 219 Aug 29 06:57 dhcpd6.leases
-rw-rw-r-- 1 root  dhcpd   0 Aug 29 06:57 dhcpd6.leases~
-rw-r--r-- 1 root  root    0 Aug 29 07:16 dhcpd.lease
-rw-r--r-- 1 dhcpd dhcpd 219 Aug 29 06:57 dhcpd.leases
-rw-rw-r-- 1 root  dhcpd   0 Aug 29 06:57 dhcpd.leases~
root@dhcpserver:/var/lib/dhcp# _
```

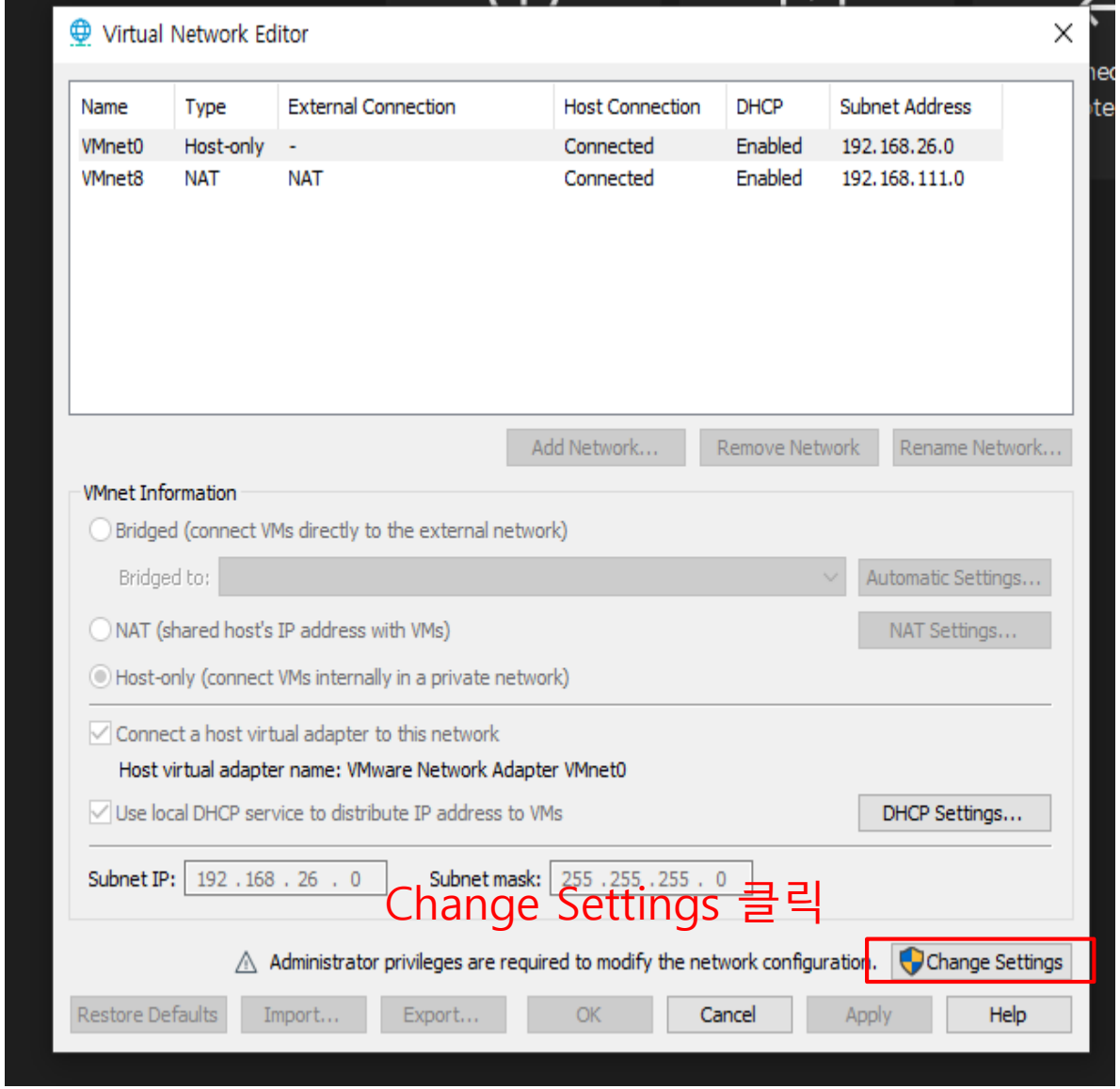
touch /var/lib/dhcp/dhcpd.lease 입력
cd /var/lib/dhcp 입력

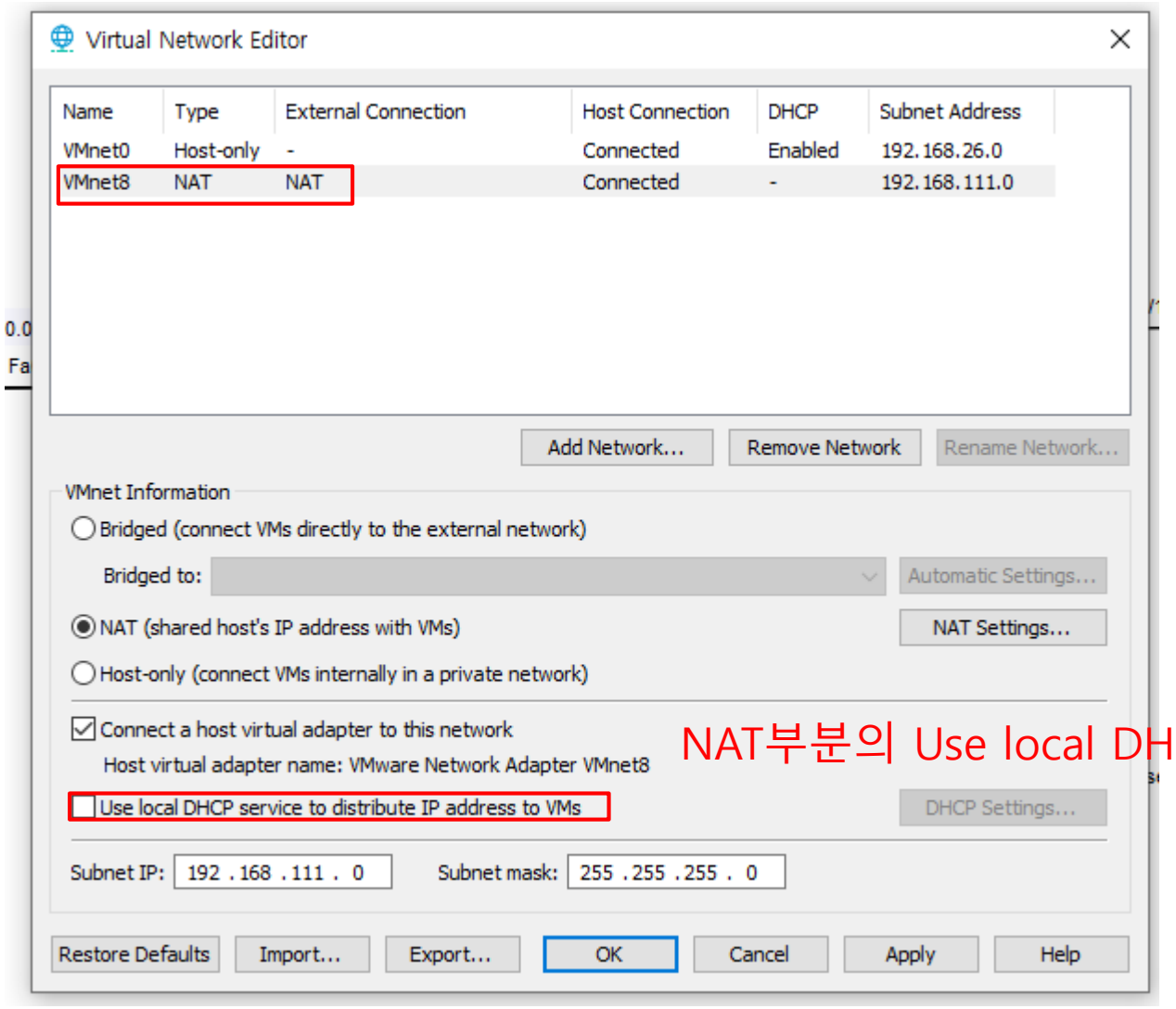


dhcpd.lease 를 삭제후
(rm dhcpd.lease)

systemctl restart/enable/status isc-dhcp-server 실행


VMware Workstation
File Edit View VM Tabs Help
Cut Ctrl+X
Copy Ctrl+C
Paste Ctrl+V
Virtual Network Editor...
Preferences... Ctrl+P
Home
master
worker01
worker02
client
dhcpserver
WORKSTATION PRO 17
Create a New Virtual Machine
Open a Virtual Machine
Connect to a Remote Server
Edit의 Virtual network Editor 들어가서
vmware


Virtual Network Editor
Name Type External Connection Host Connection DHCP Subnet Address
VMnet0 Host-only - Connected Enabled 192.168.26.0
VMnet8 NAT NAT Connected Enabled 192.168.111.0
Add Network... Remove Network Rename Network...
VMnet Information
Bridged (connect VMs directly to the external network)
Bridged to:
Automatic Settings...
NAT (shared host's IP address with VMs)
NAT Settings...
Host-only (connect VMs internally in a private network)
Connect a host virtual adapter to this network
Host virtual adapter name: VMware Network Adapter VMnet0
Use local DHCP service to distribute IP address to VMs
DHCP Settings...
Subnet IP: 192 . 168 . 26 . 0
Subnet mask: 255 . 255 . 255 . 0
Change Settings 클릭
Administrator privileges are required to modify the network configuration.
Change Settings
Restore Defaults Import... Export... OK Cancel Apply Help



NAT부분의 Use local DHCP 부분 체크 해제