Ubuntu操作系统安装说明

1. **安装前的准备**
2. **安装镜像说明**

本系统安装镜像用于安装ubuntu操作系统，文件格式为iso格式，可以刻盘安装或者使用U盘启动工具安装，文件名格式为：ubuntu-20.04.4-live-server-amd64.iso。

1. **安装所需安装包**

内核包：linux-5.4.87\_v1\_20220711.tar.gz

分区工具包：syspart\_for\_ubuntu.zip

1. **安装所需的工具**

Ventoy U盘启动盘制作工具（本文使用的版本ventoy-1.0.63），下载地址：<https://www.ventoy.net/cn/>

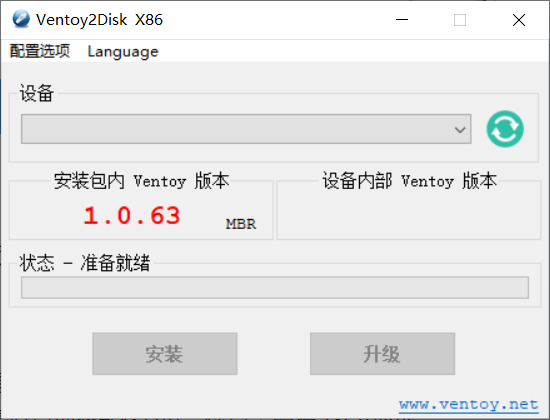
MobaXterm shell工具,下载地址：

https://download.mobatek.net/2212022060563542/MobaXterm\_Portable\_v22.1.zip

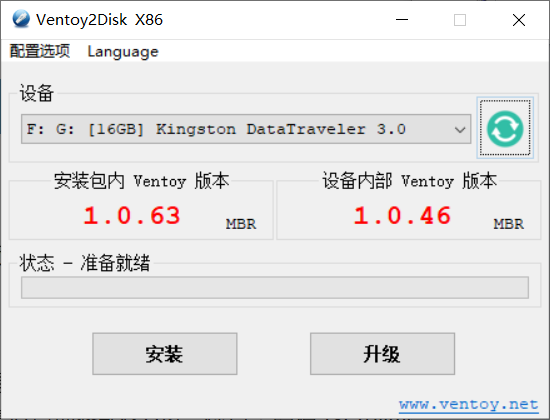
**二．U盘安装**

**1.使用Ventoy工具制作启动U盘**

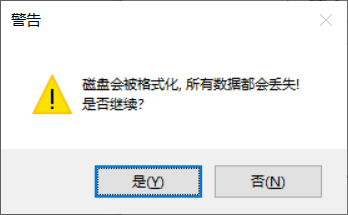
打开Ventoy。

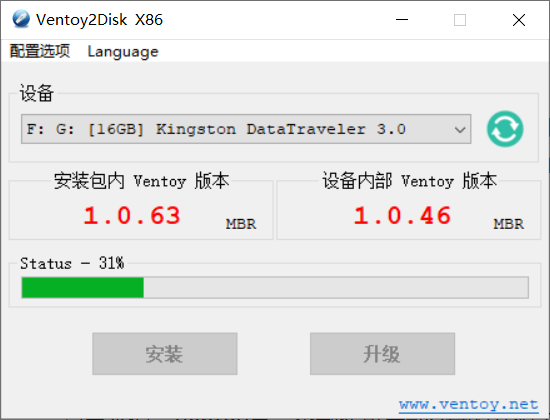


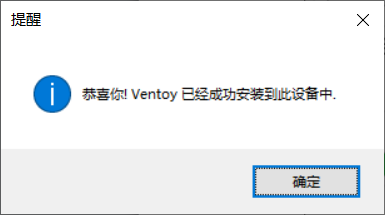
插入U盘，点击刷新图标。



选择U盘对应的盘符，点击“安装”按钮，选择“是”。



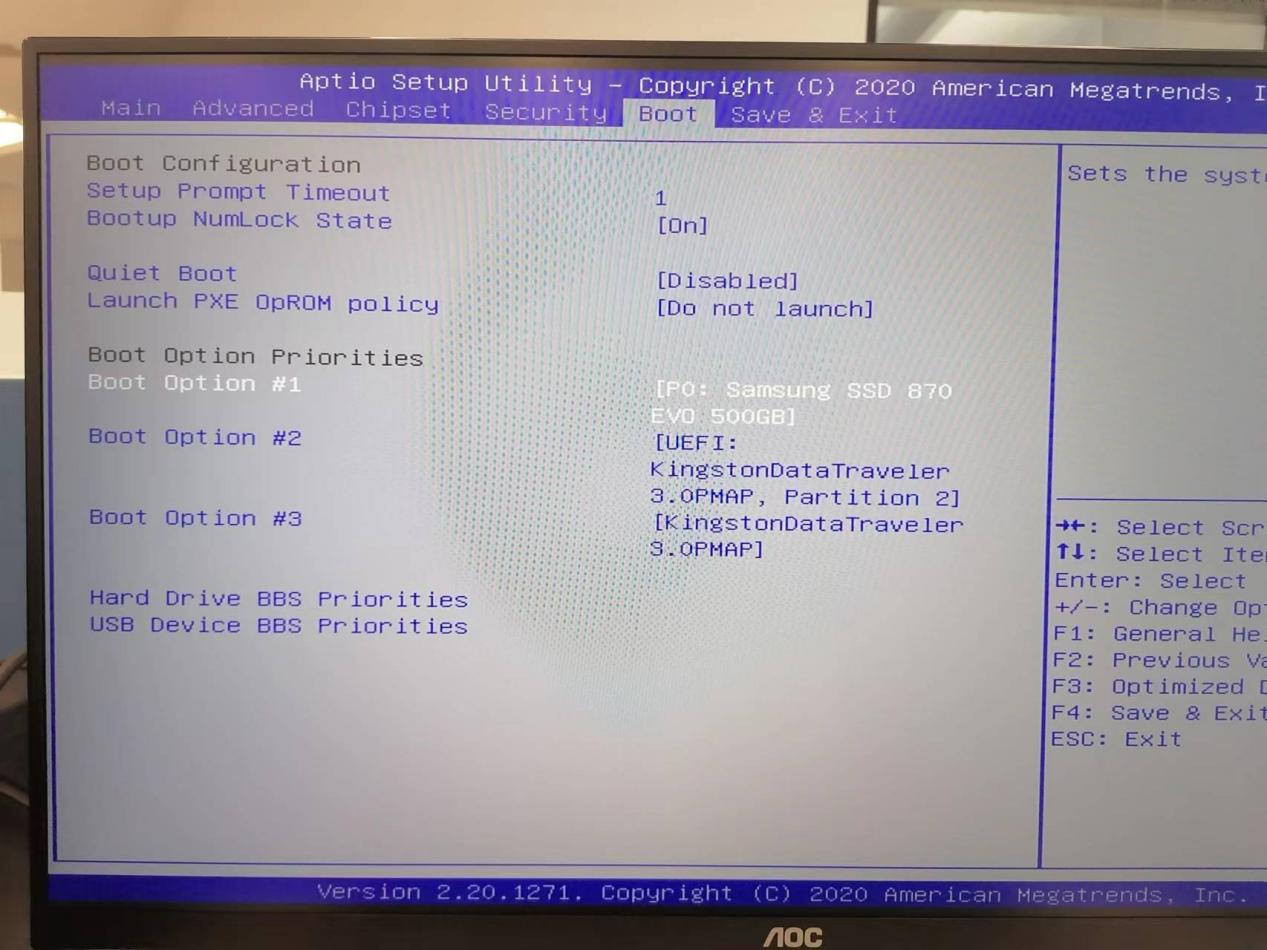




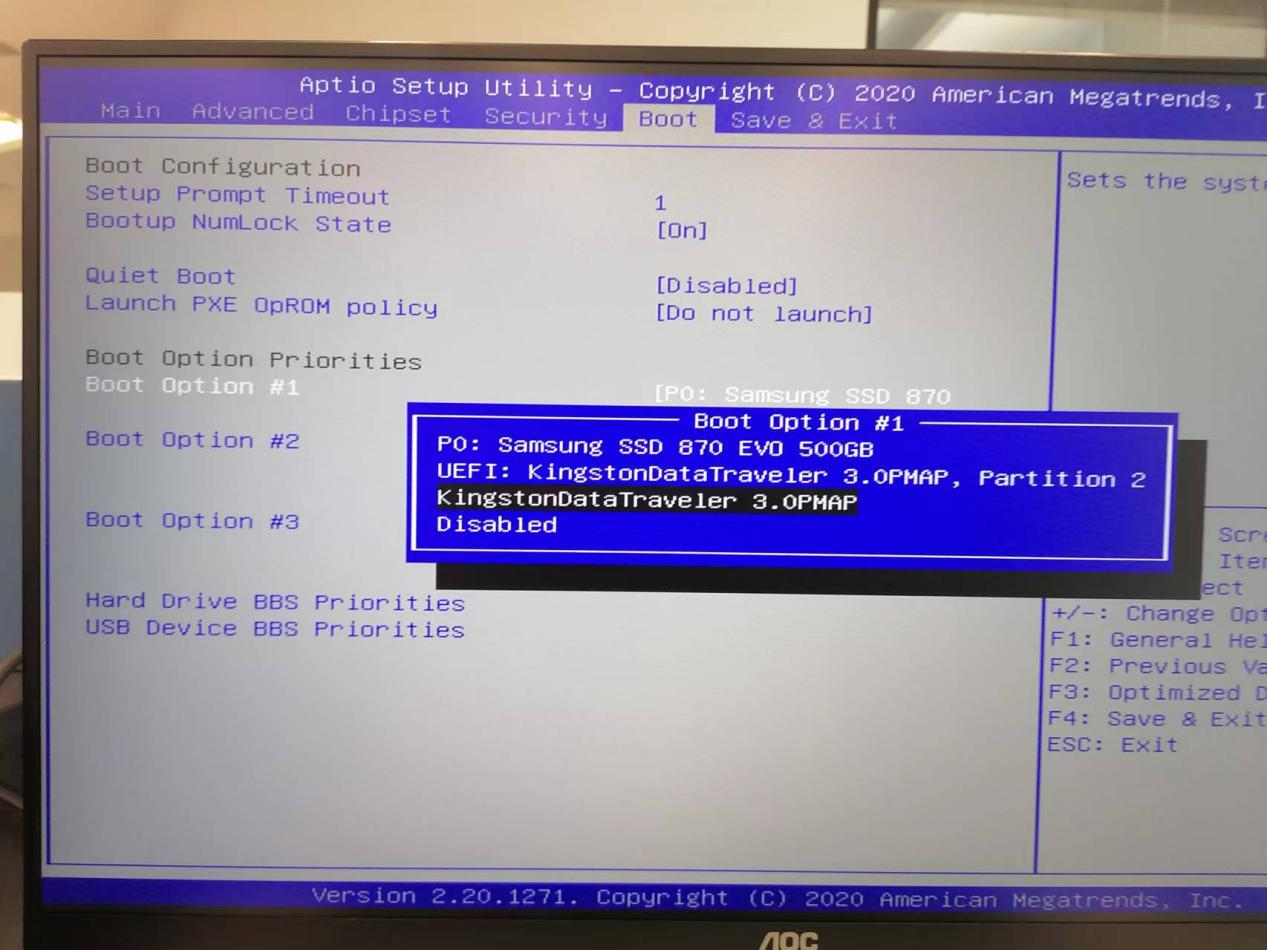
将镜像文件ubuntu-20.04.4-live-server-amd64.iso复制到U盘根目录中。

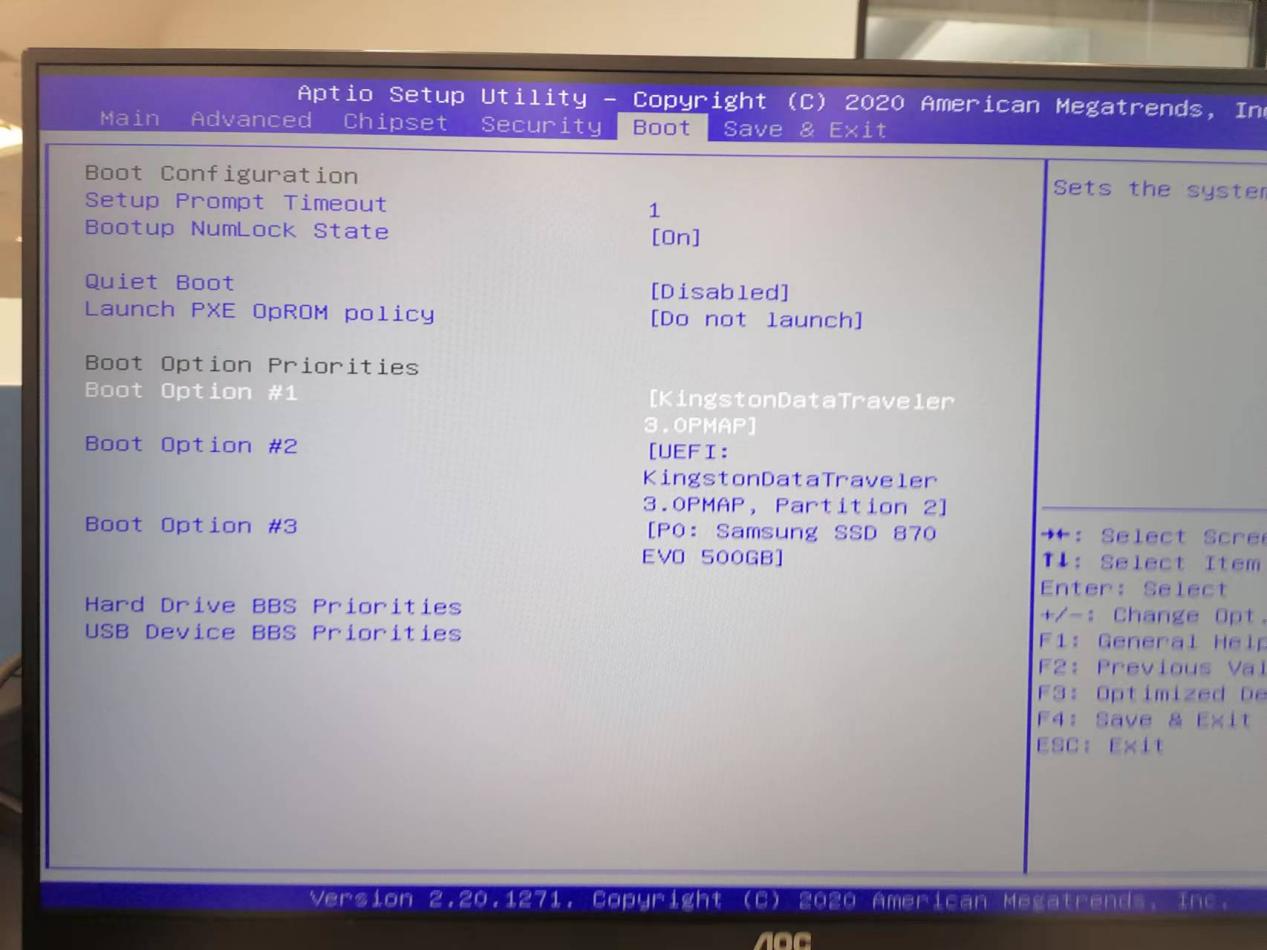
1. **使用U盘安装ubuntu系统**

将U盘插入下位机，并开启下位机。启动后按“Delete键”进入bios。并选择“Boot”=》“Boot Option #1”按回车

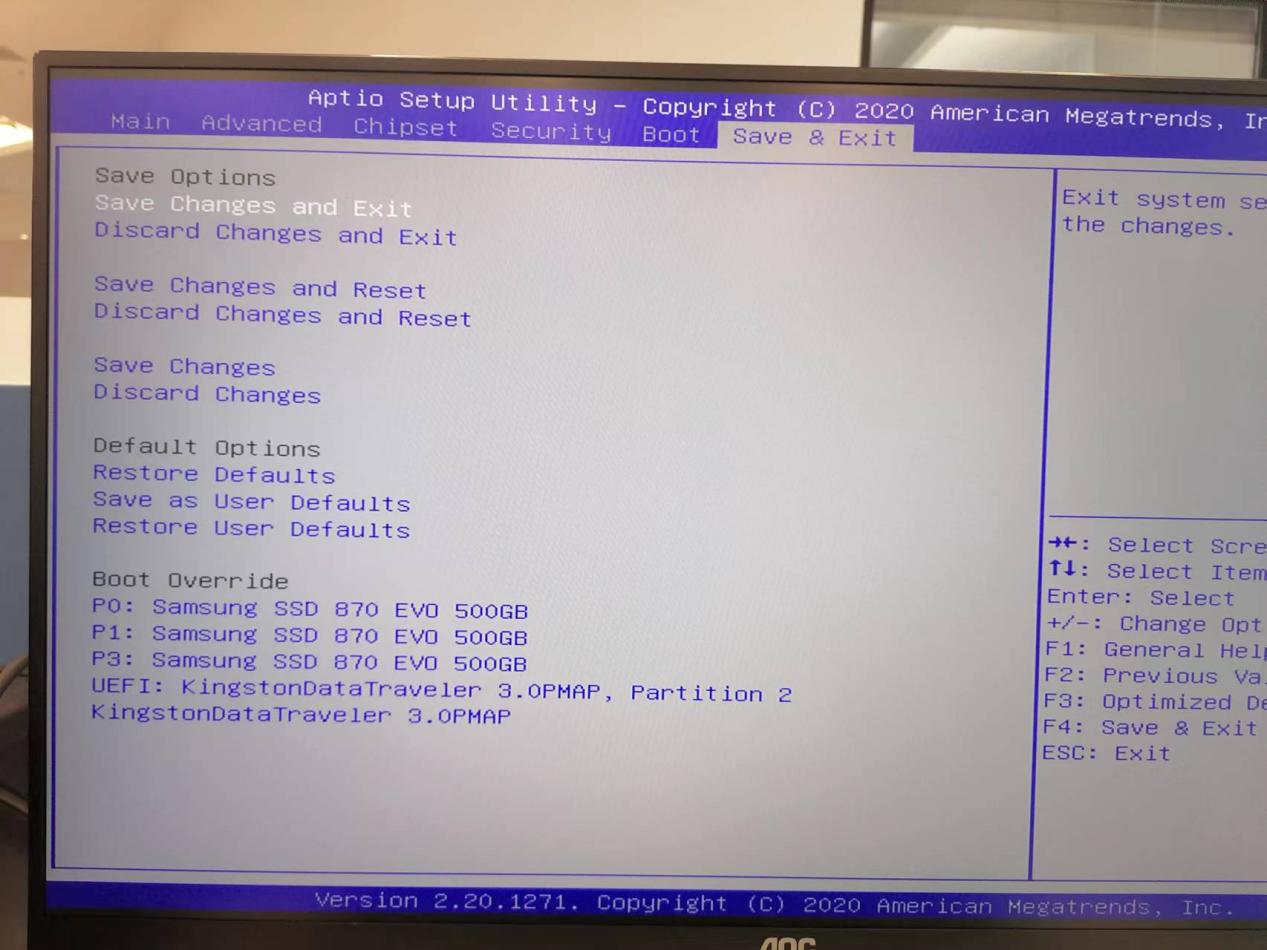


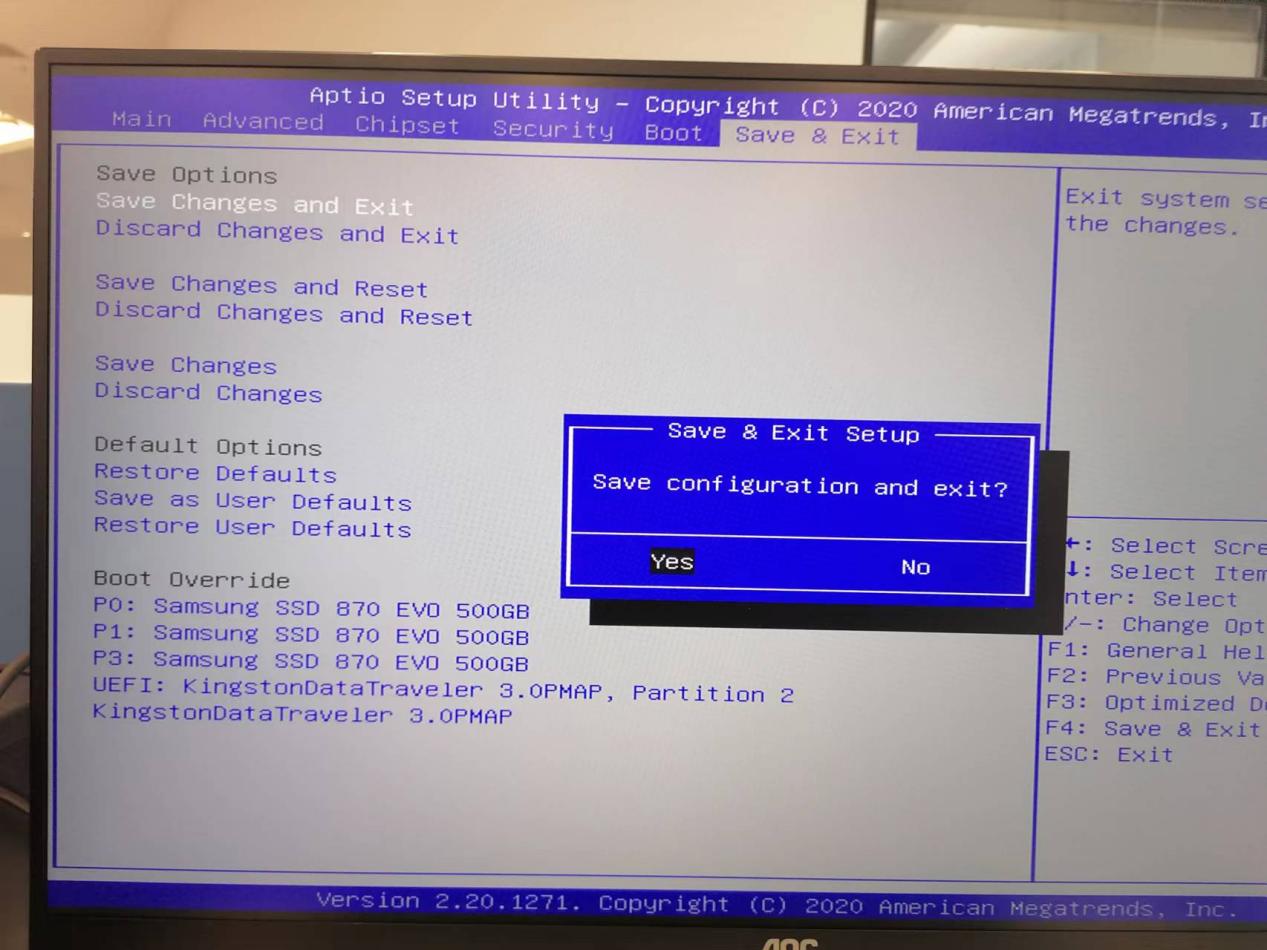
选择插入的U盘，不要选UEFI开头的





保存重启

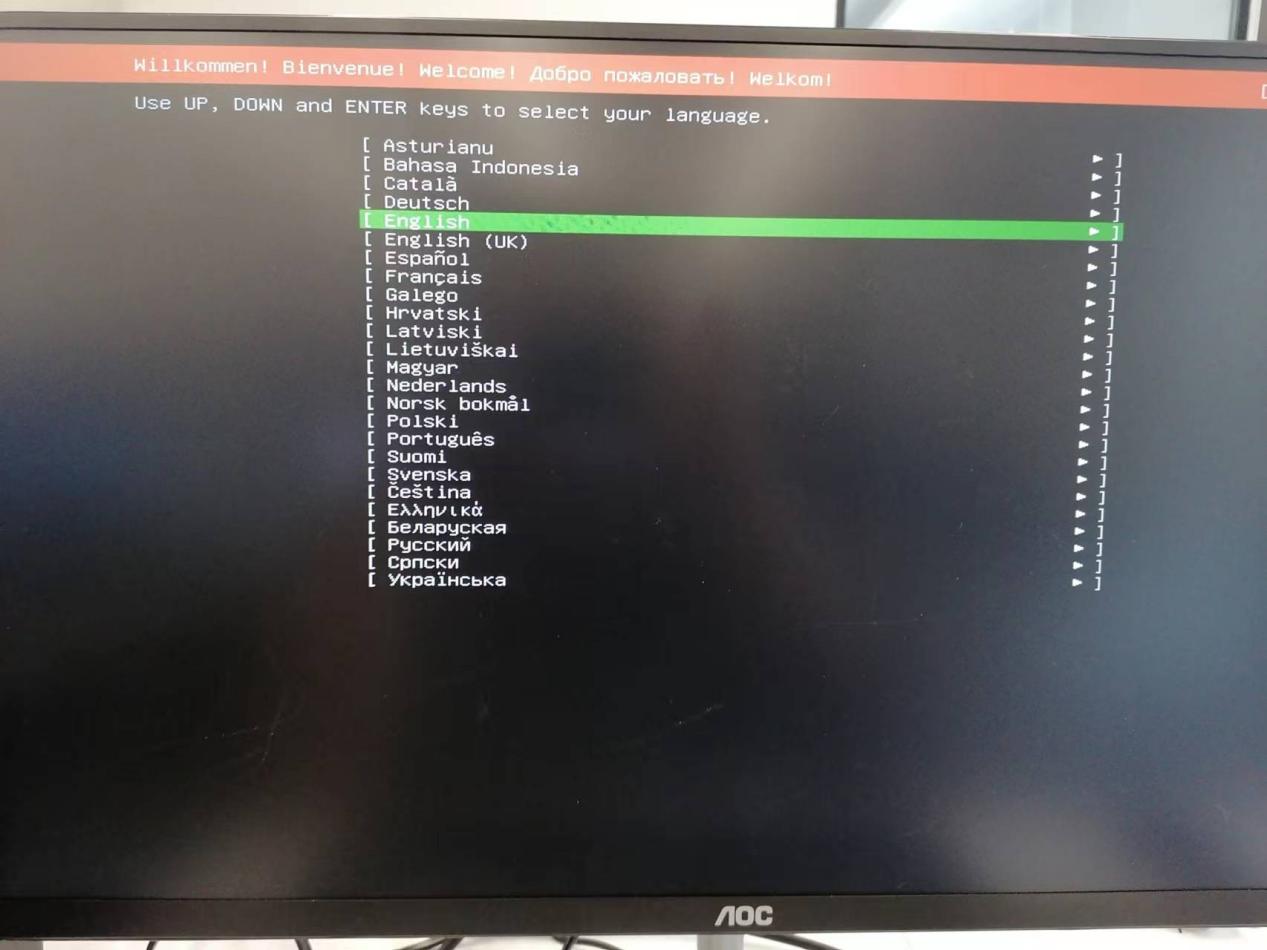




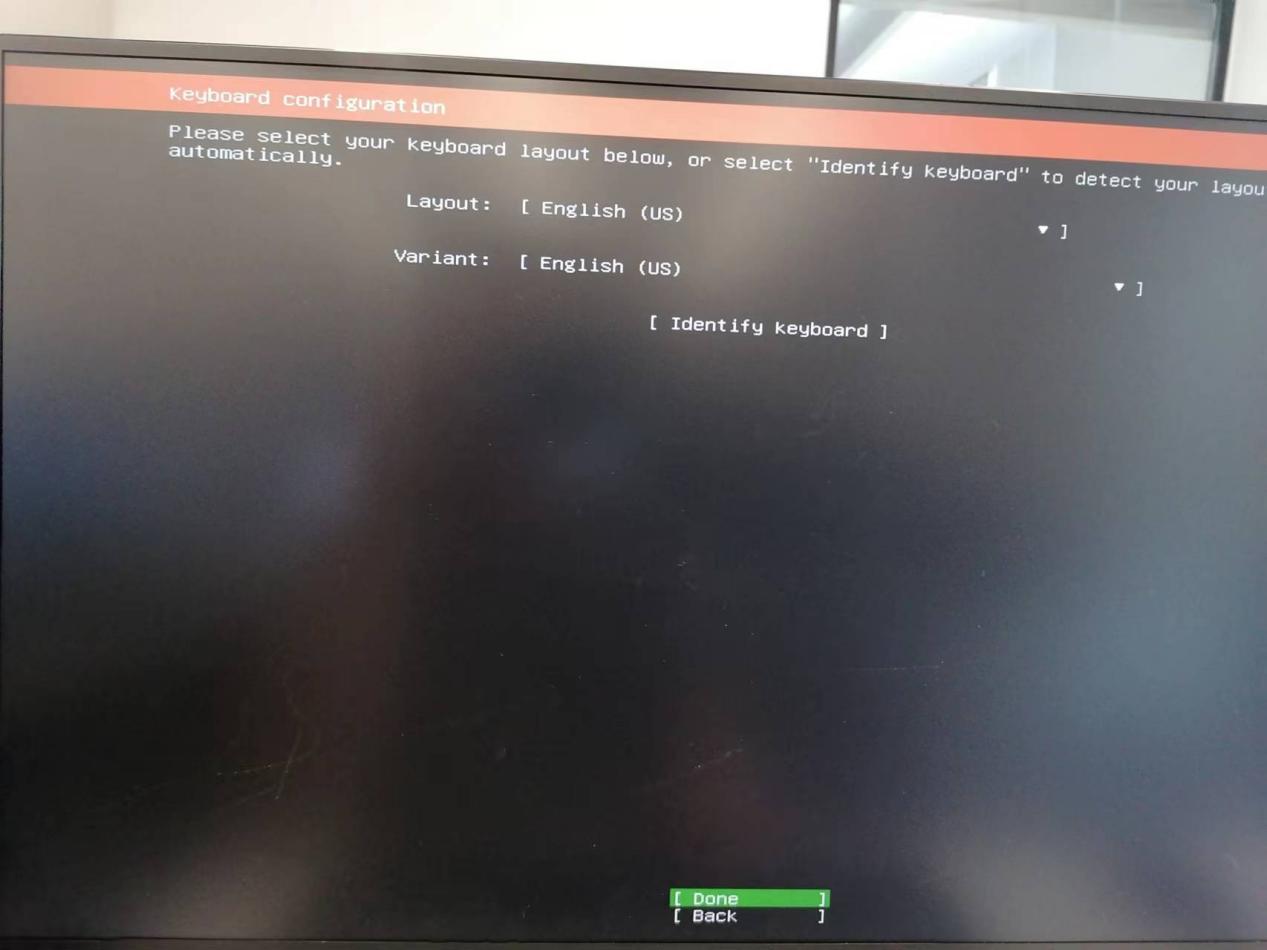
重启后选择要安装的ubuntu系统



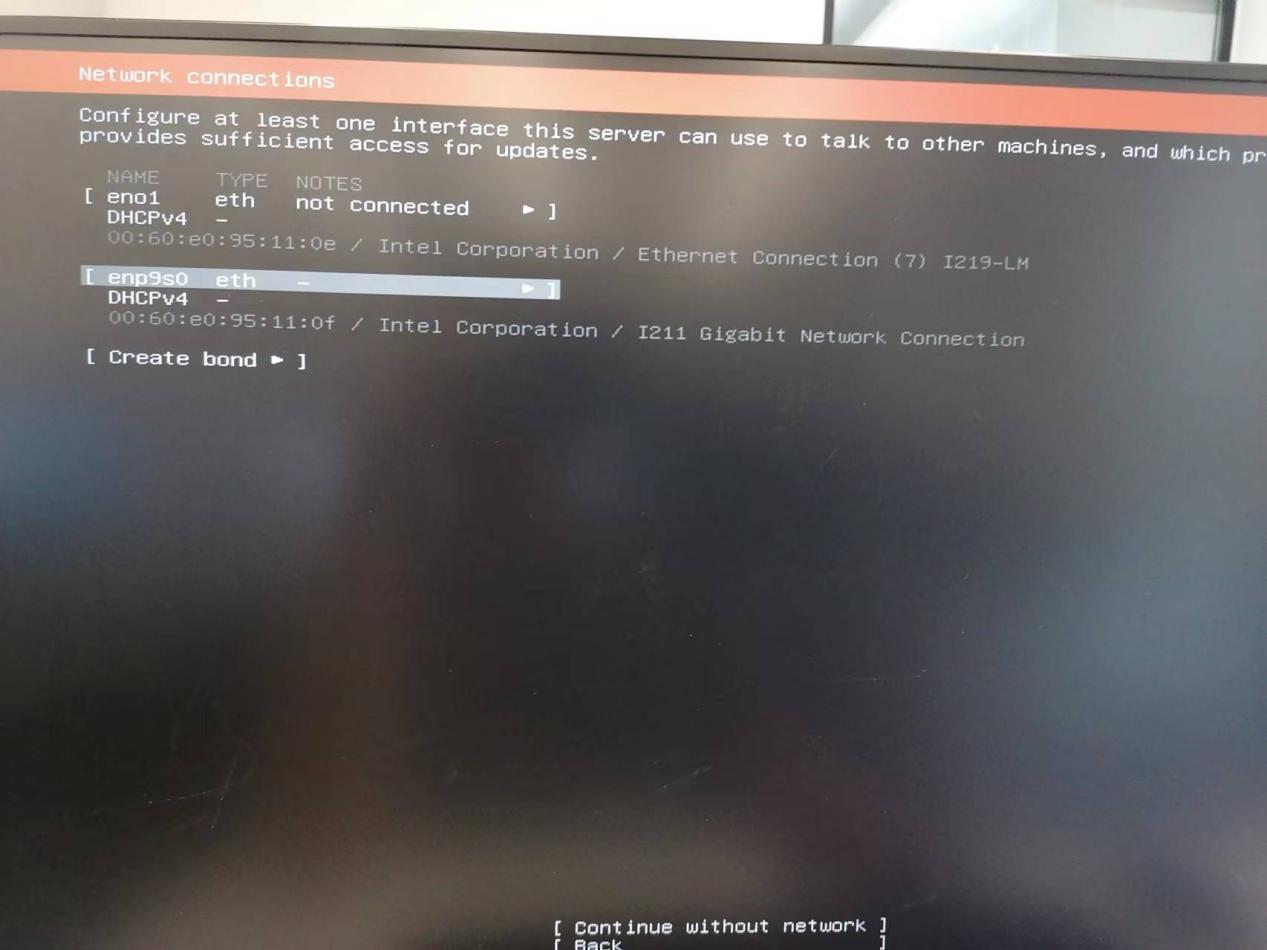
选择“English”



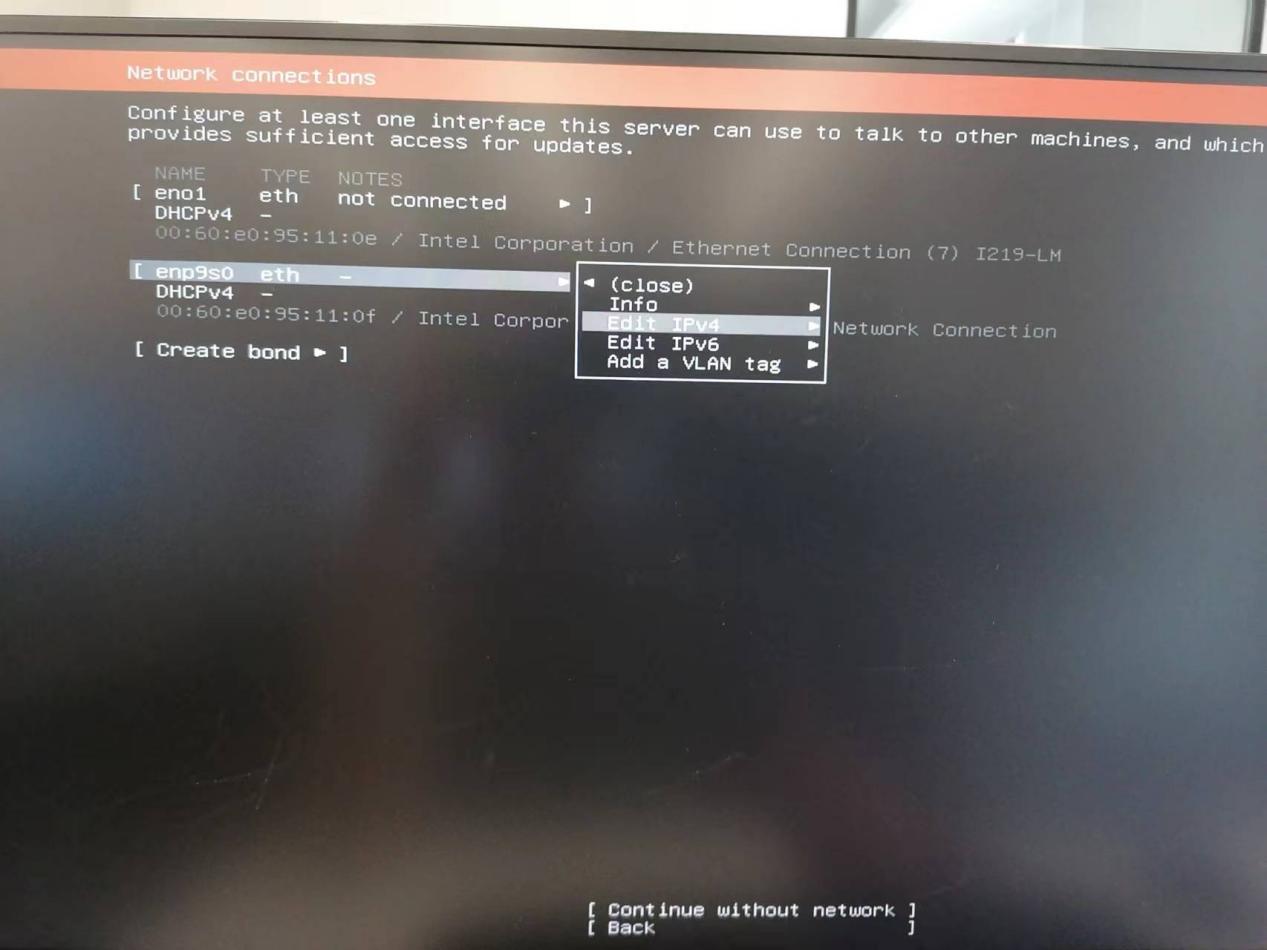
选择“Done”



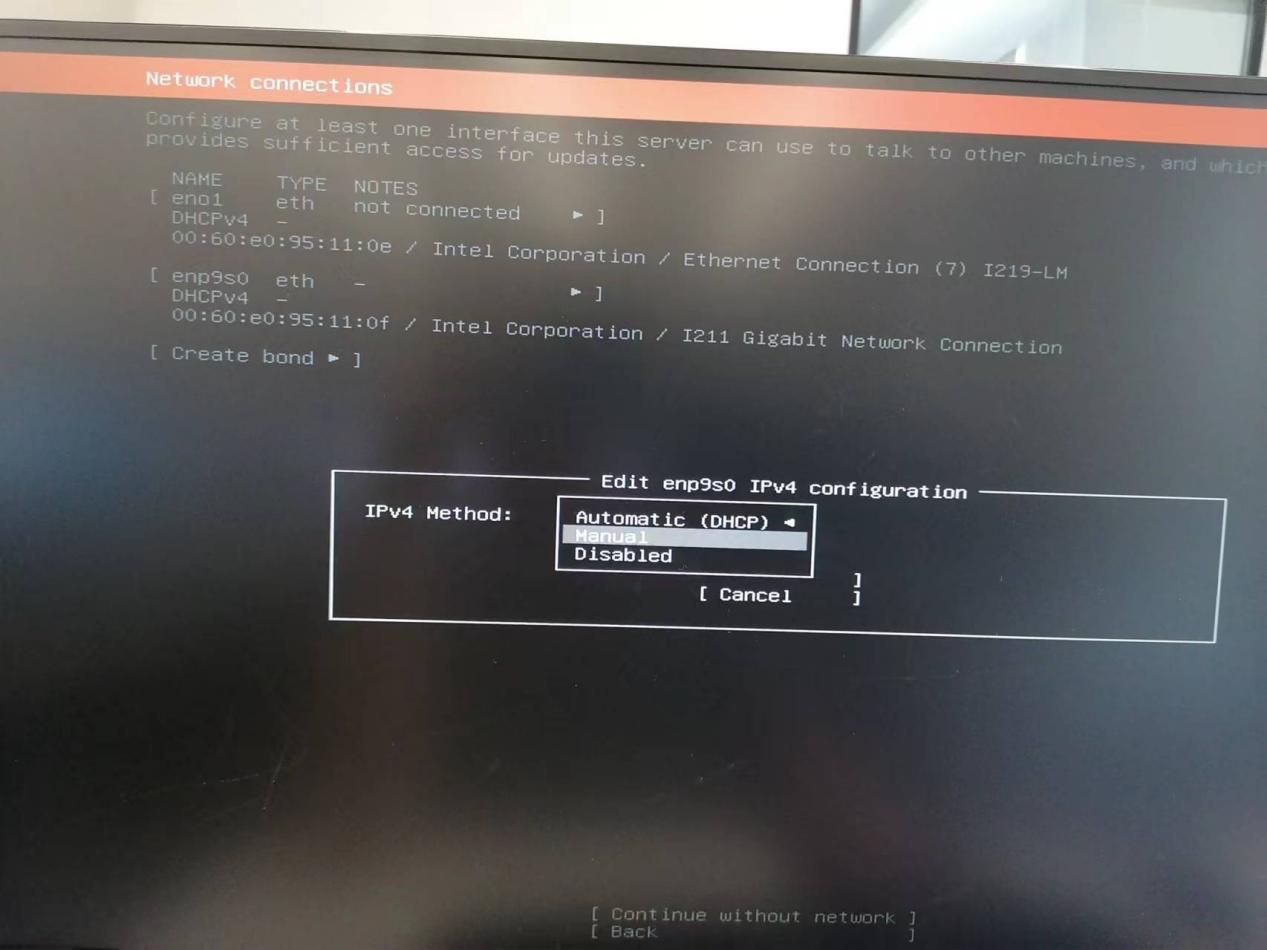
选择已插网线的网卡“enp9s0”按回车



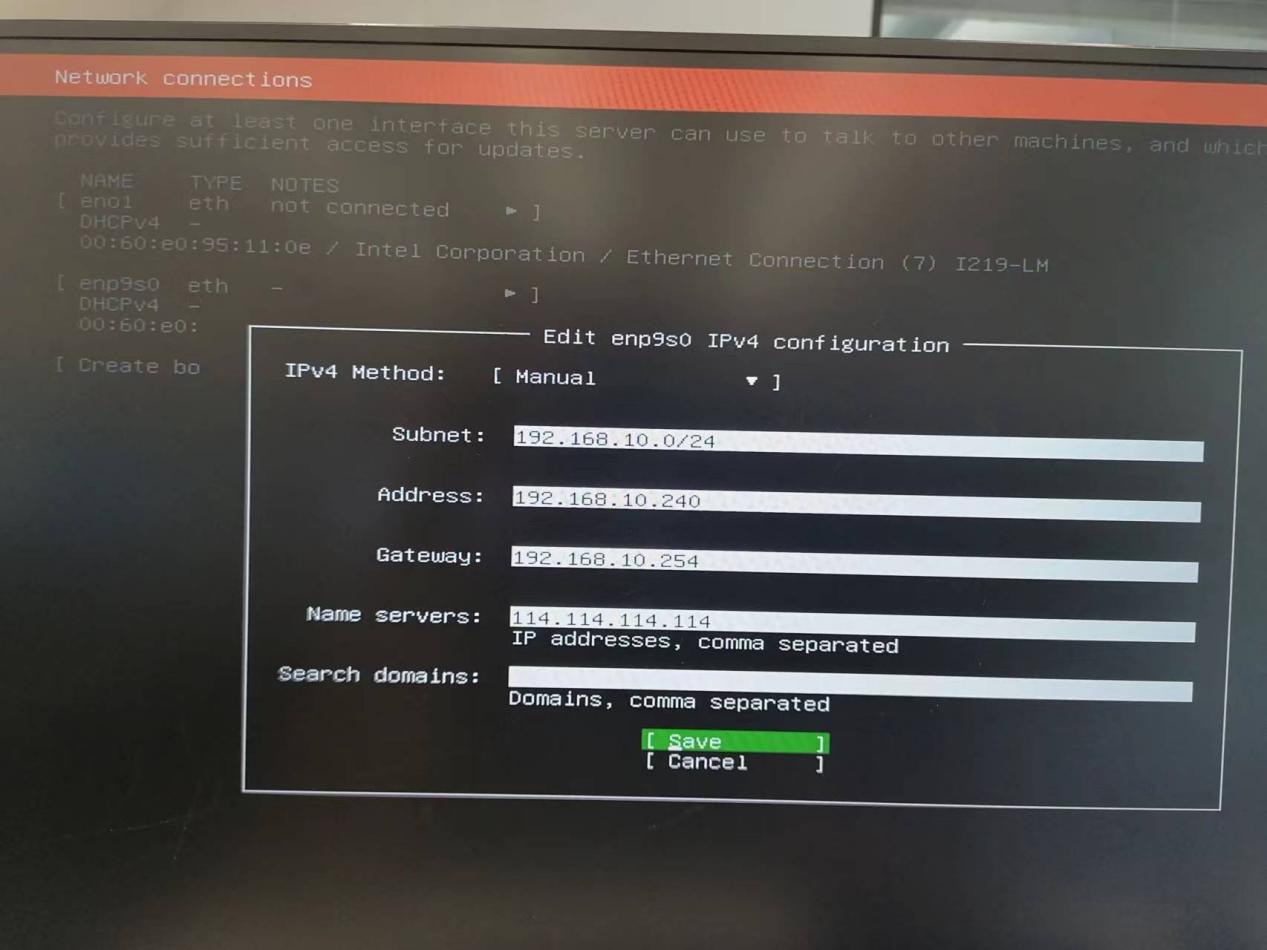
选择“Edit IPv4”



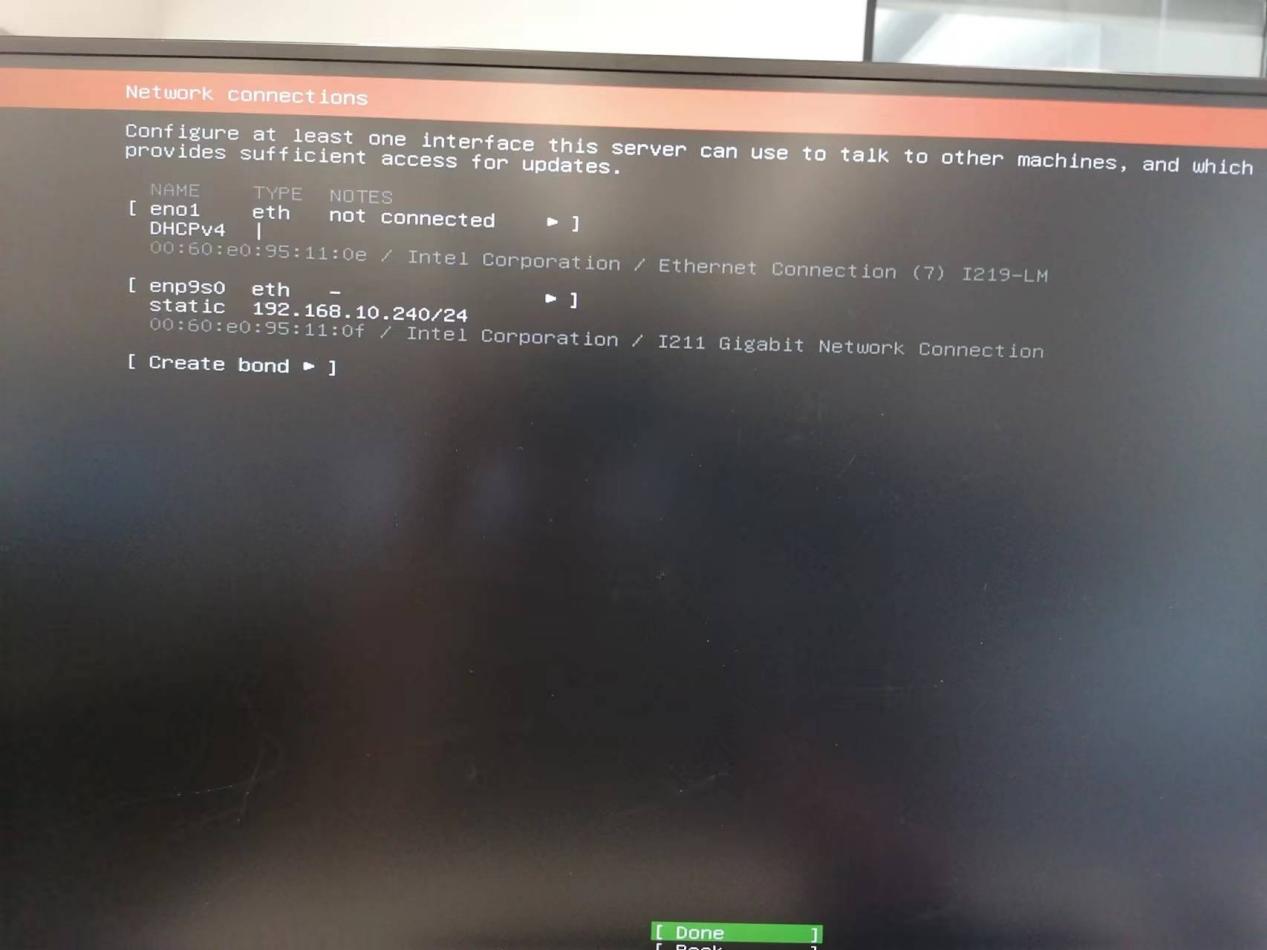
“IPV4 Methothod”选择“Manual”



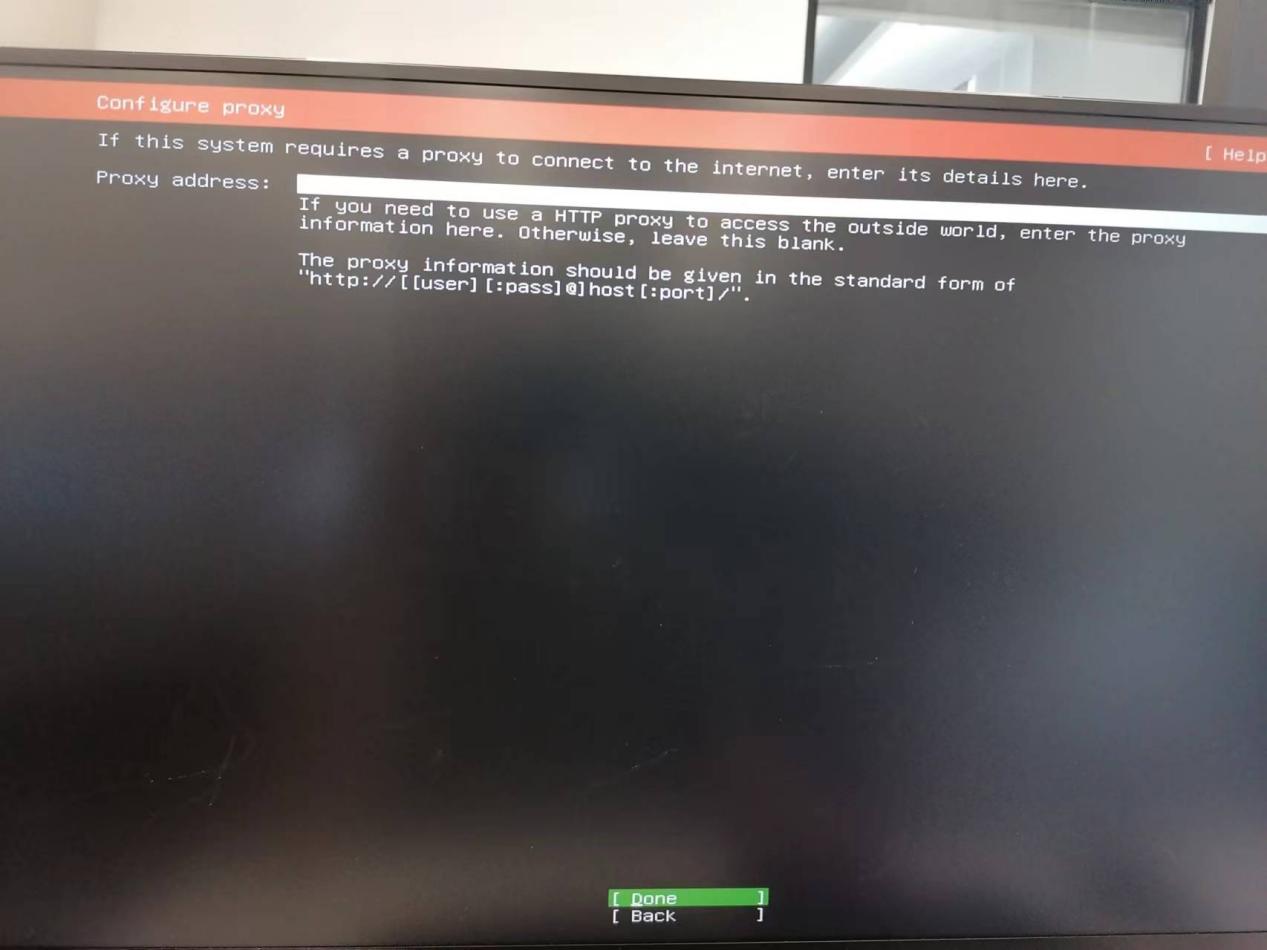
填入IP地址，按“Save”保存



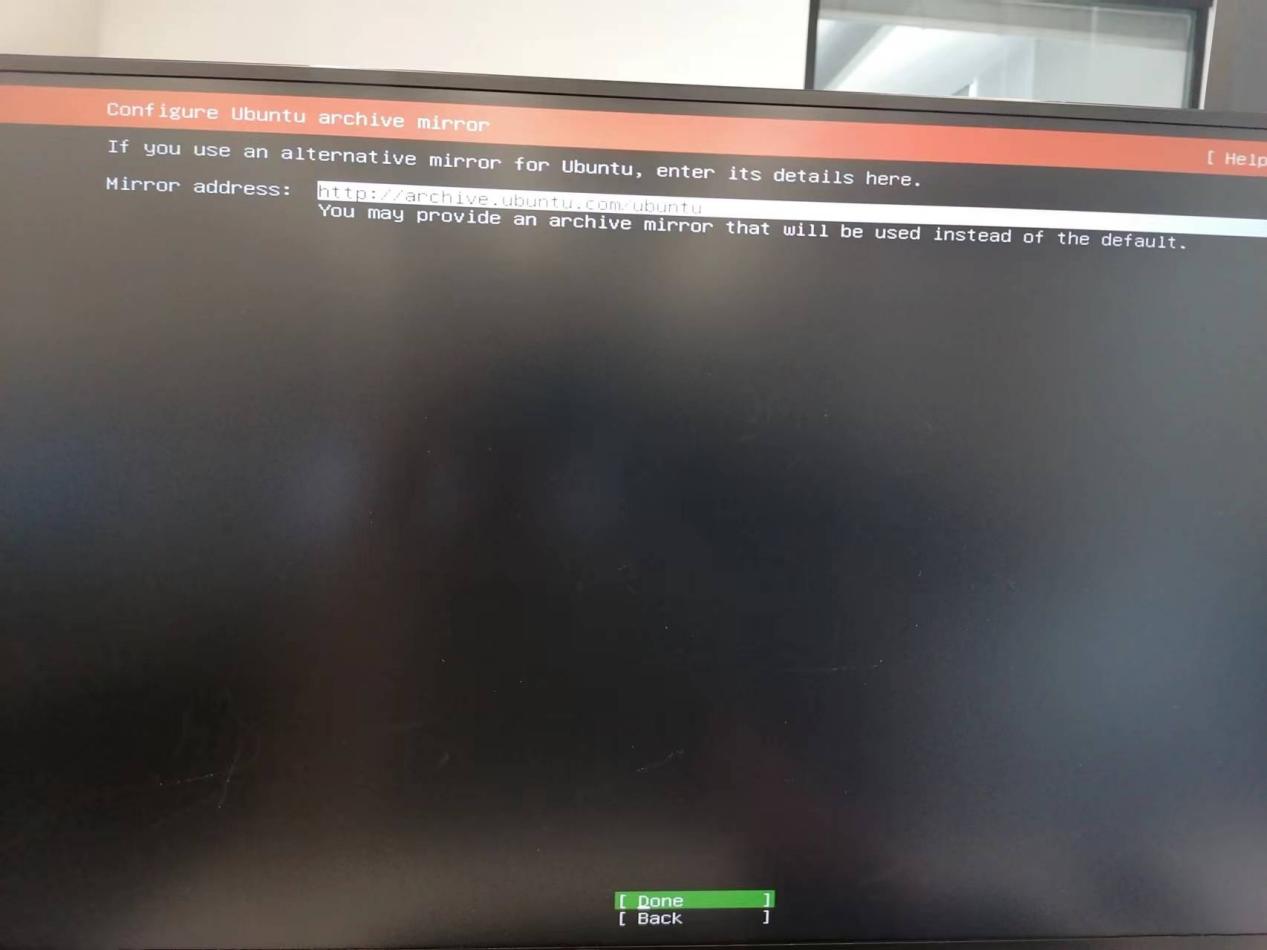
选择“Done”

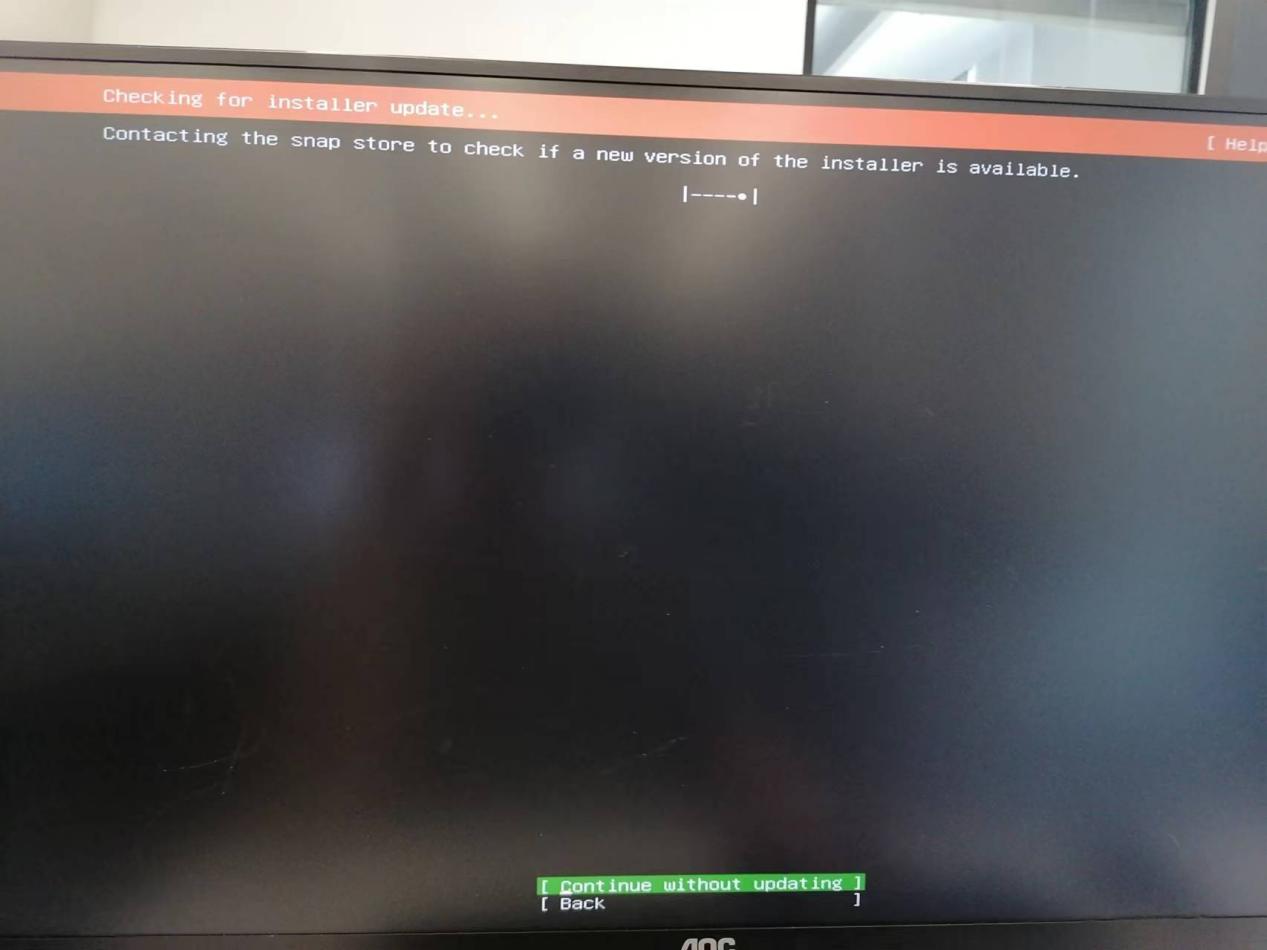


选择“Done”

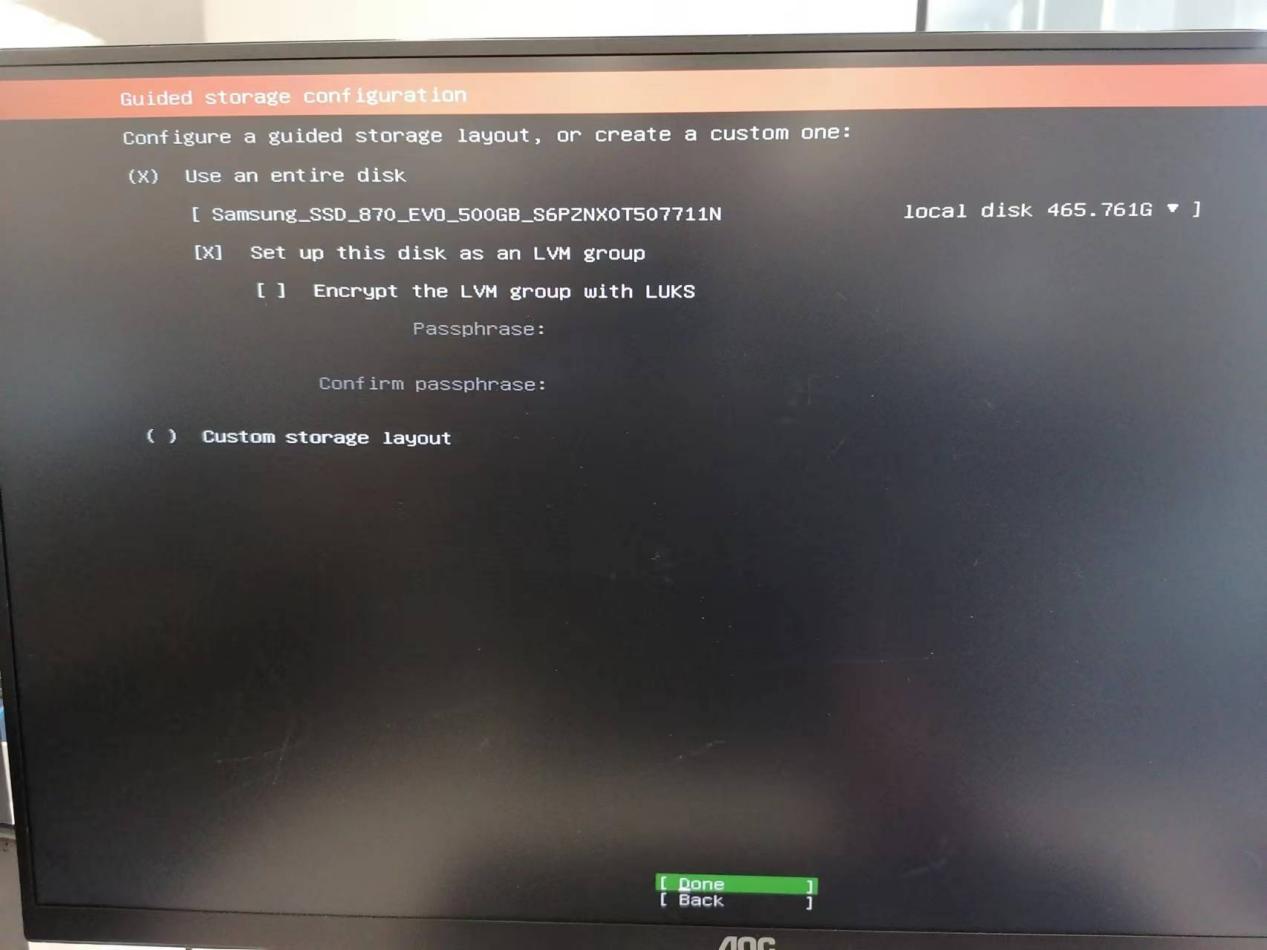


选择“Done”

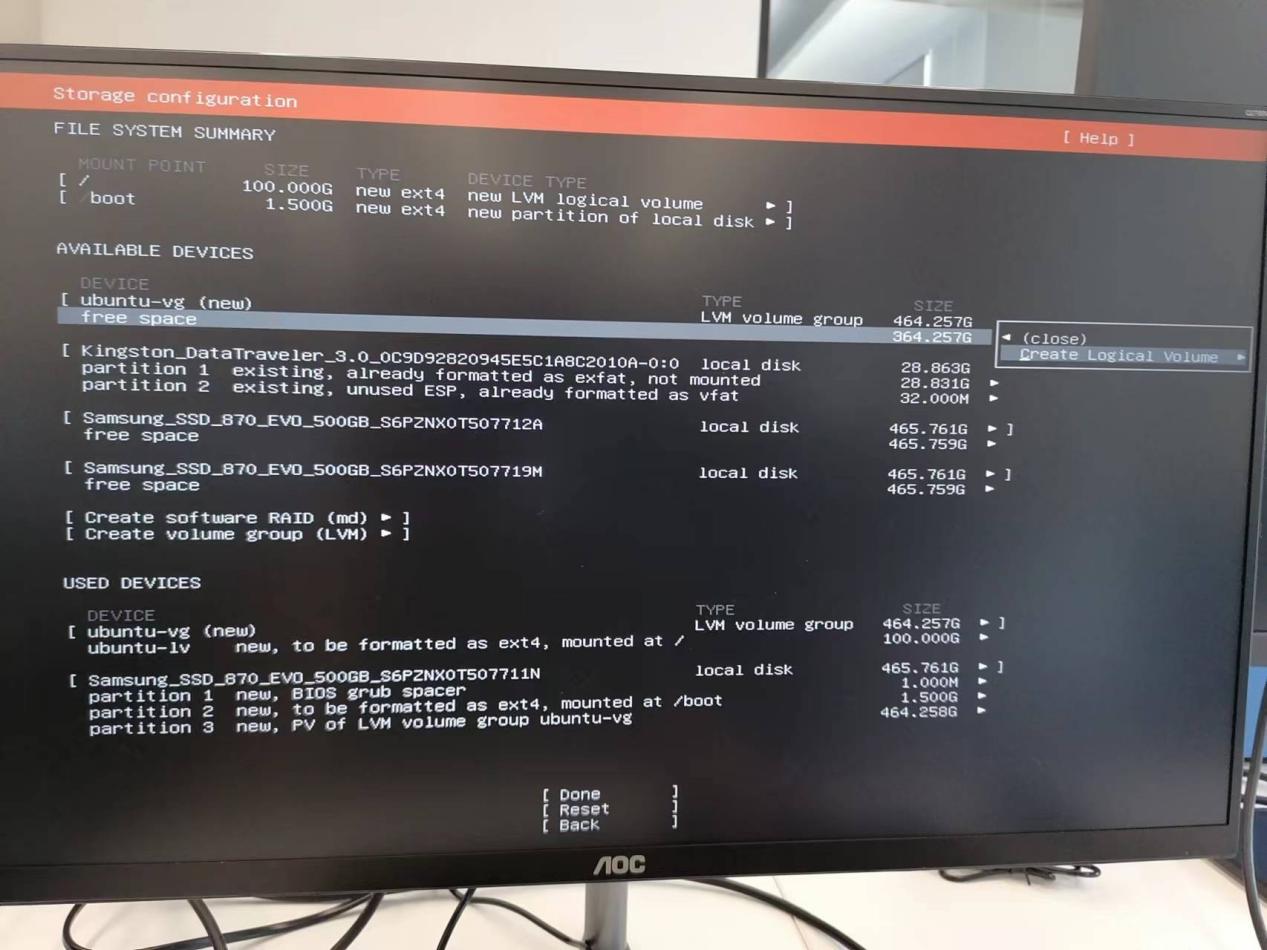


选择“Continue without updating”

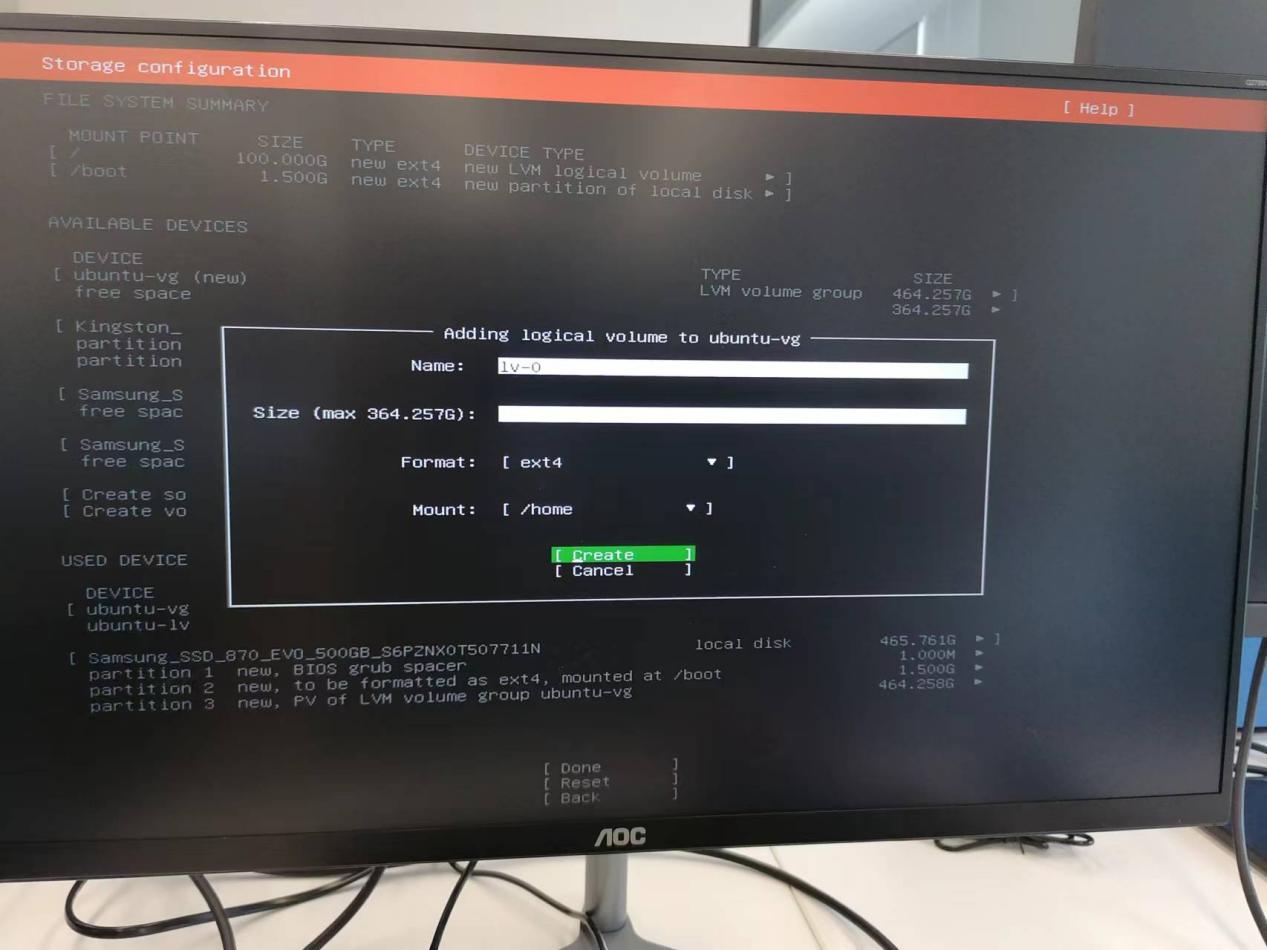
选择“Done”



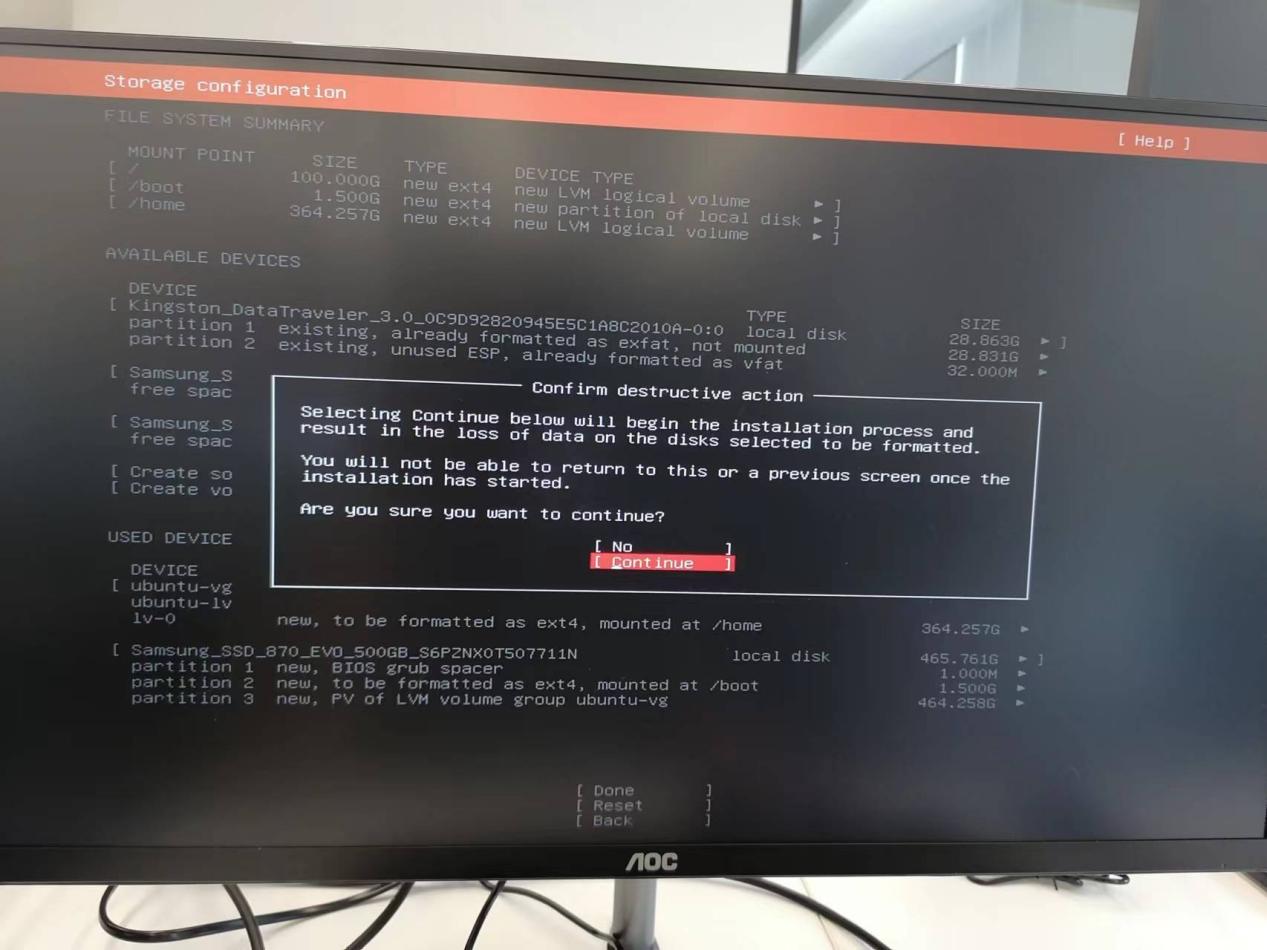
选择“ubuntu-vg(new)”下面的“free space”=>”Create Logical Volume”

****

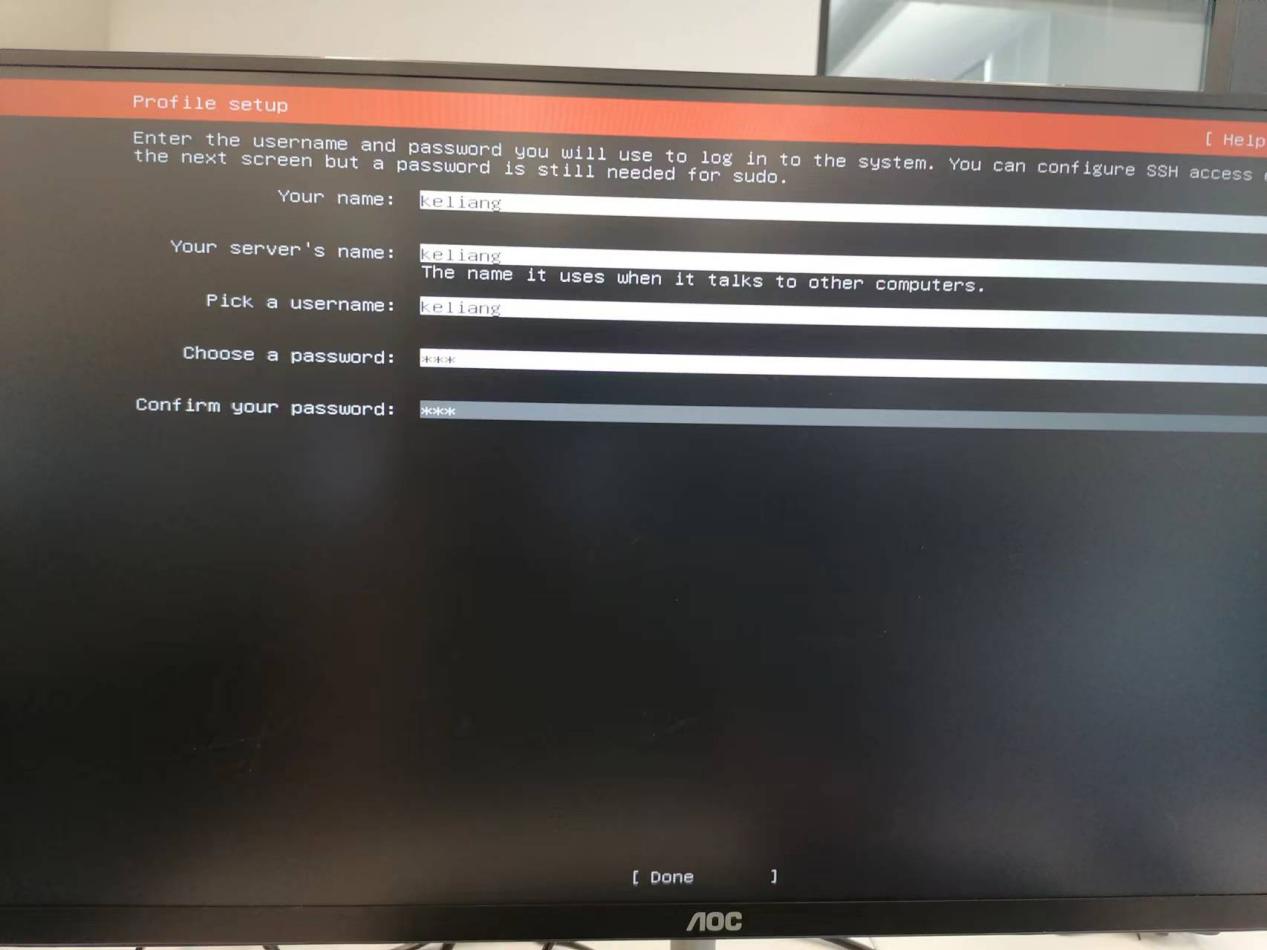
选择“Create”

****

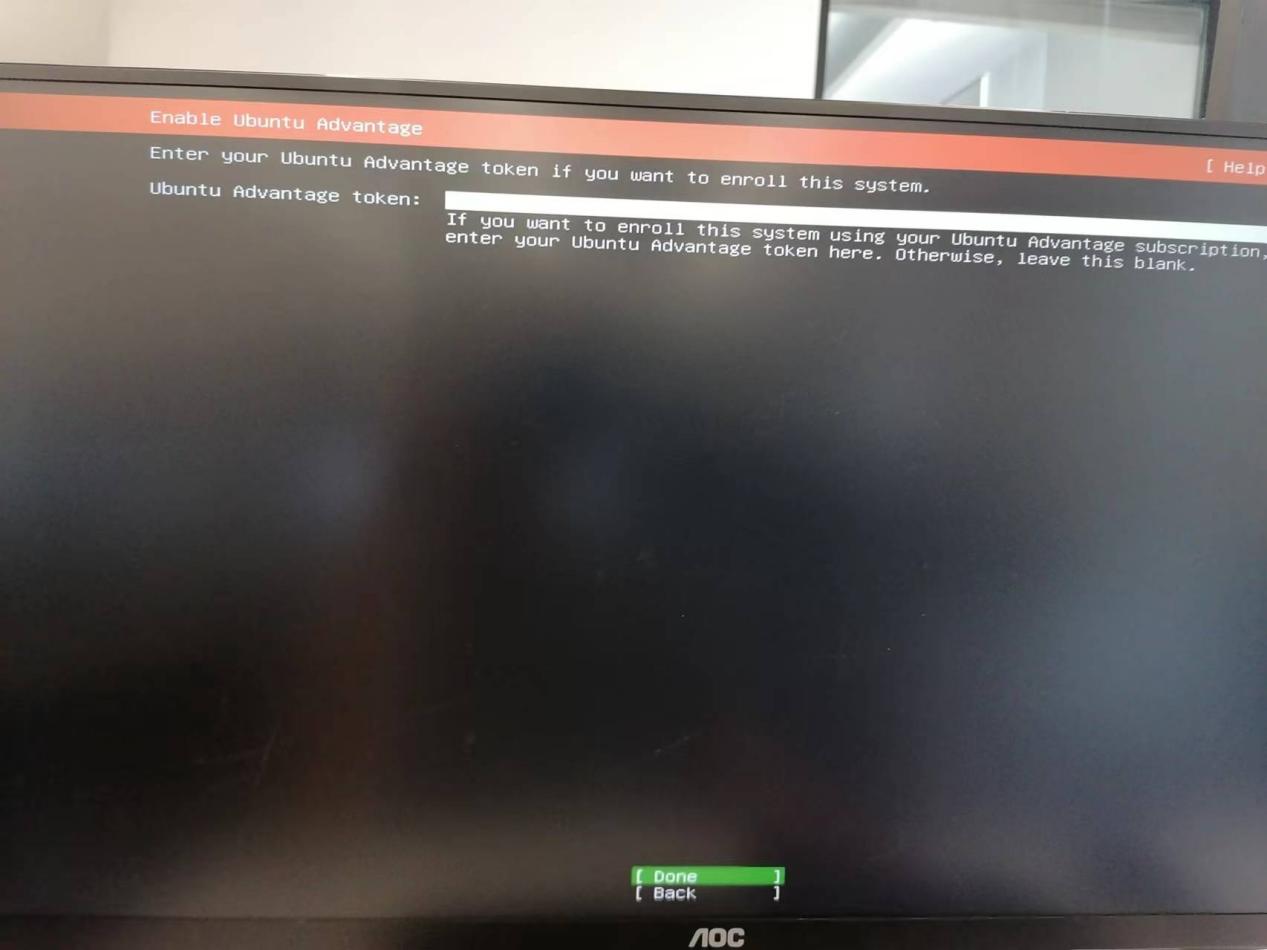
选择“Continue”

****

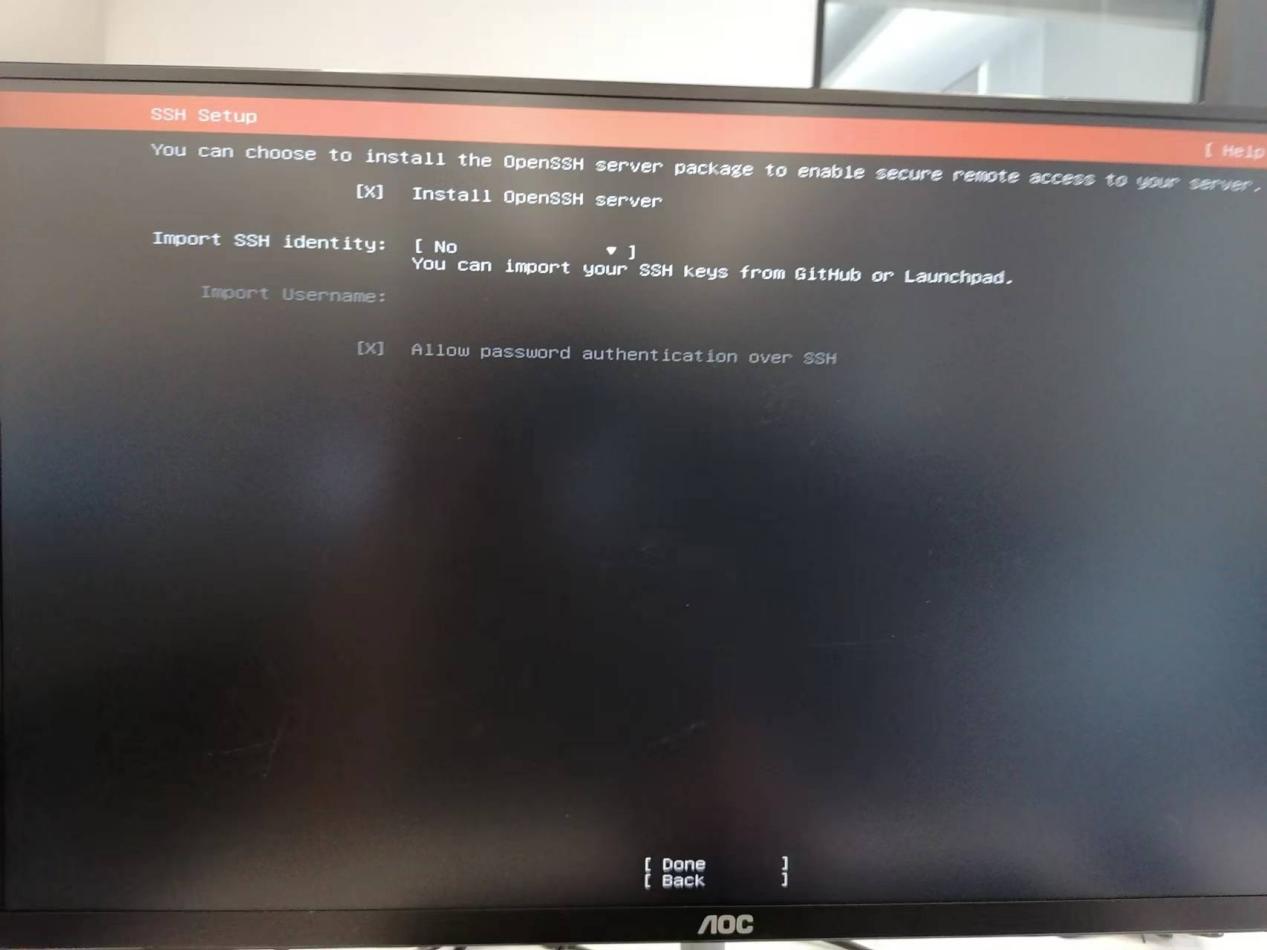
输入名字、服务器名、用户名、密码，选择“Done”

****

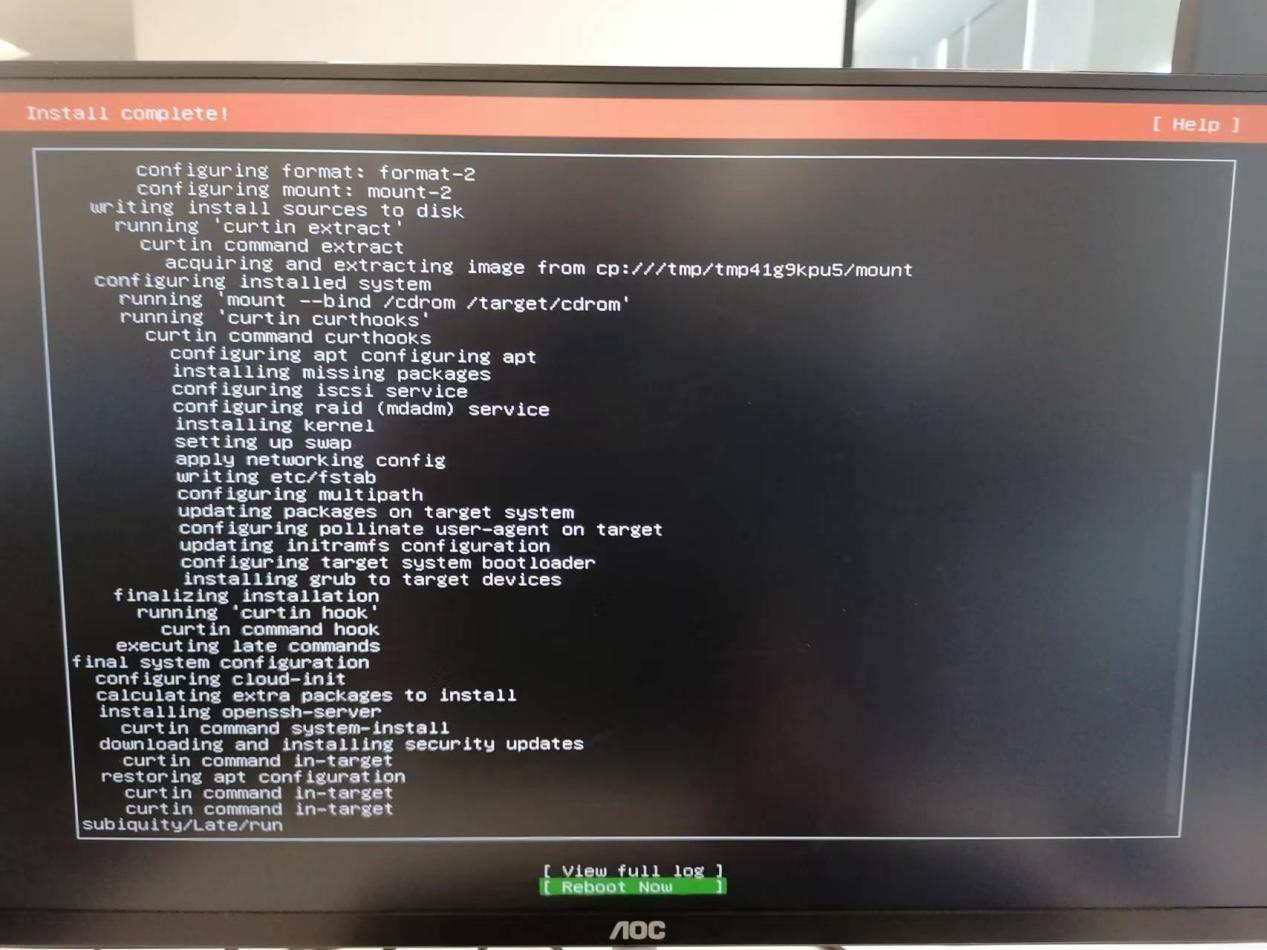
选择“Done”

****

勾上“Install OpenSSH server”

****

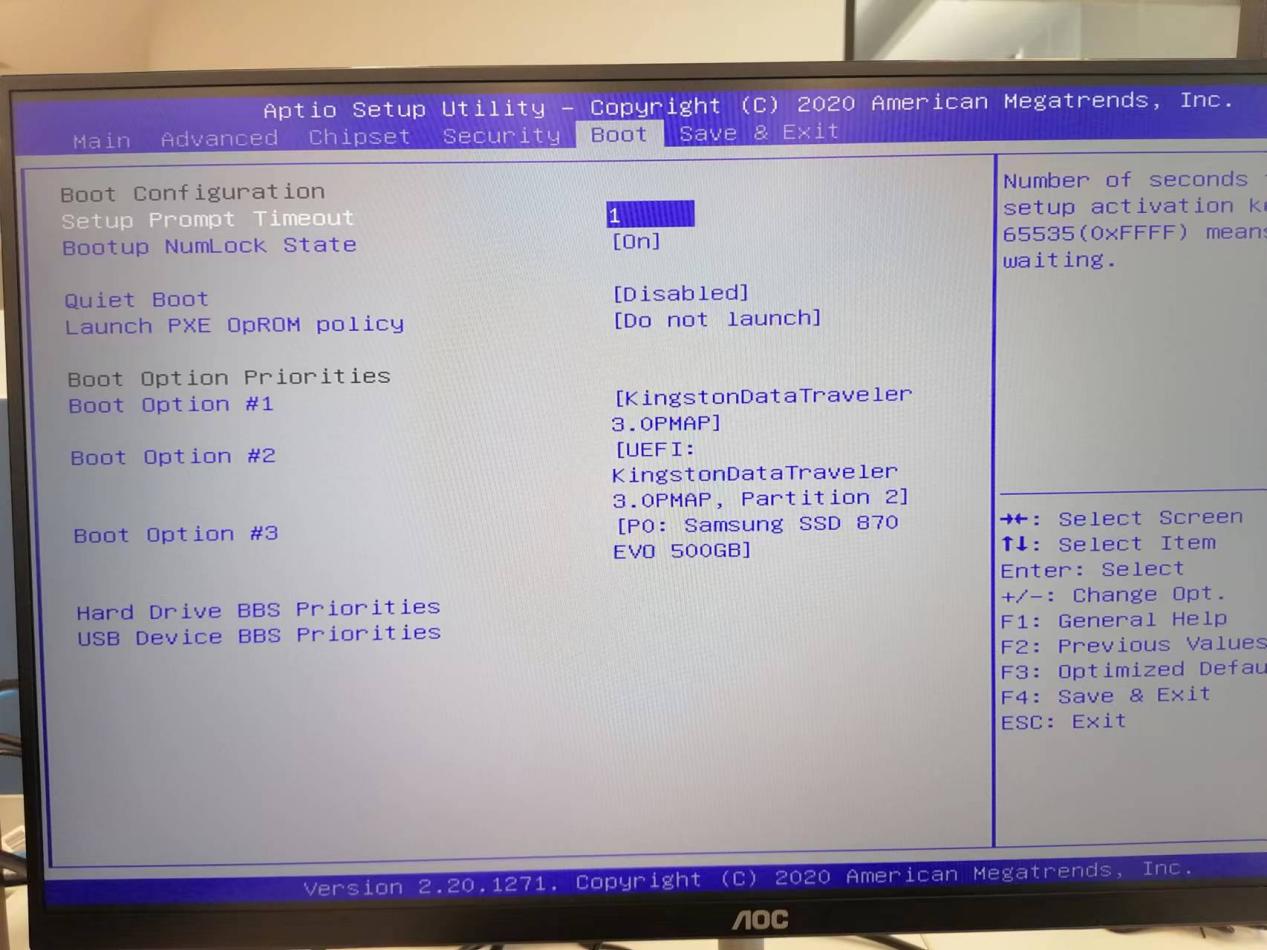
重启

****

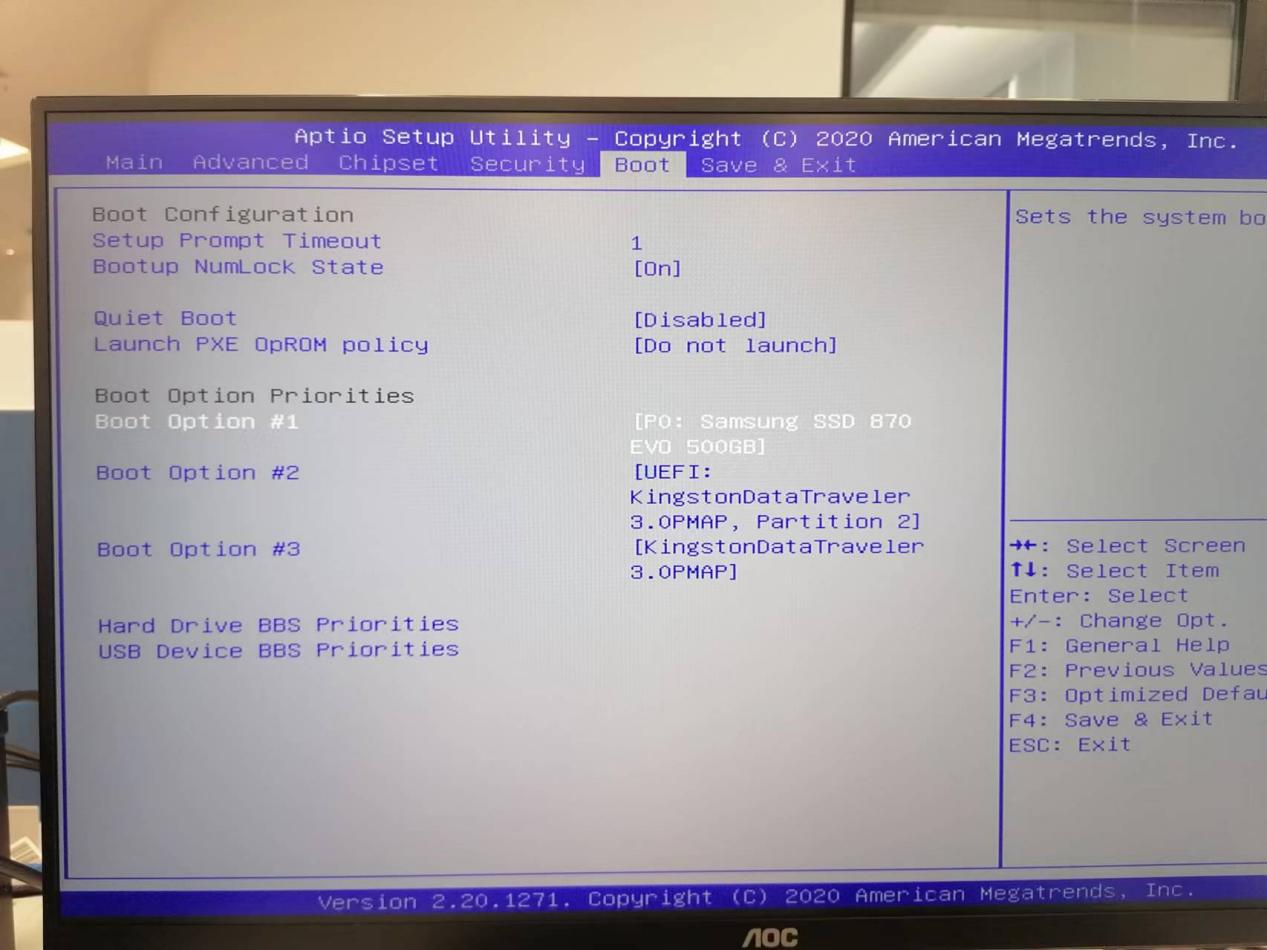
按“ENTER”

****

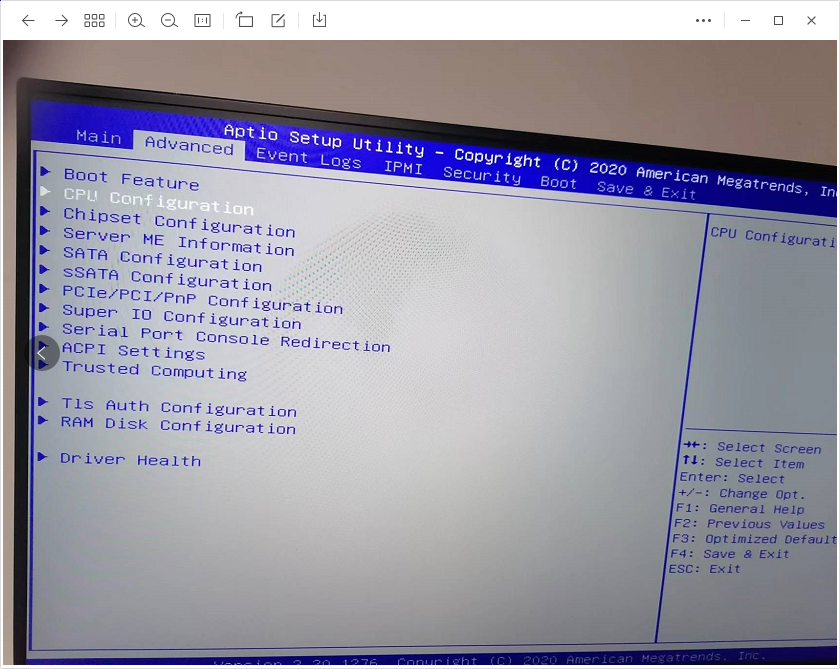
重启后按“Delete键”进入BIOS



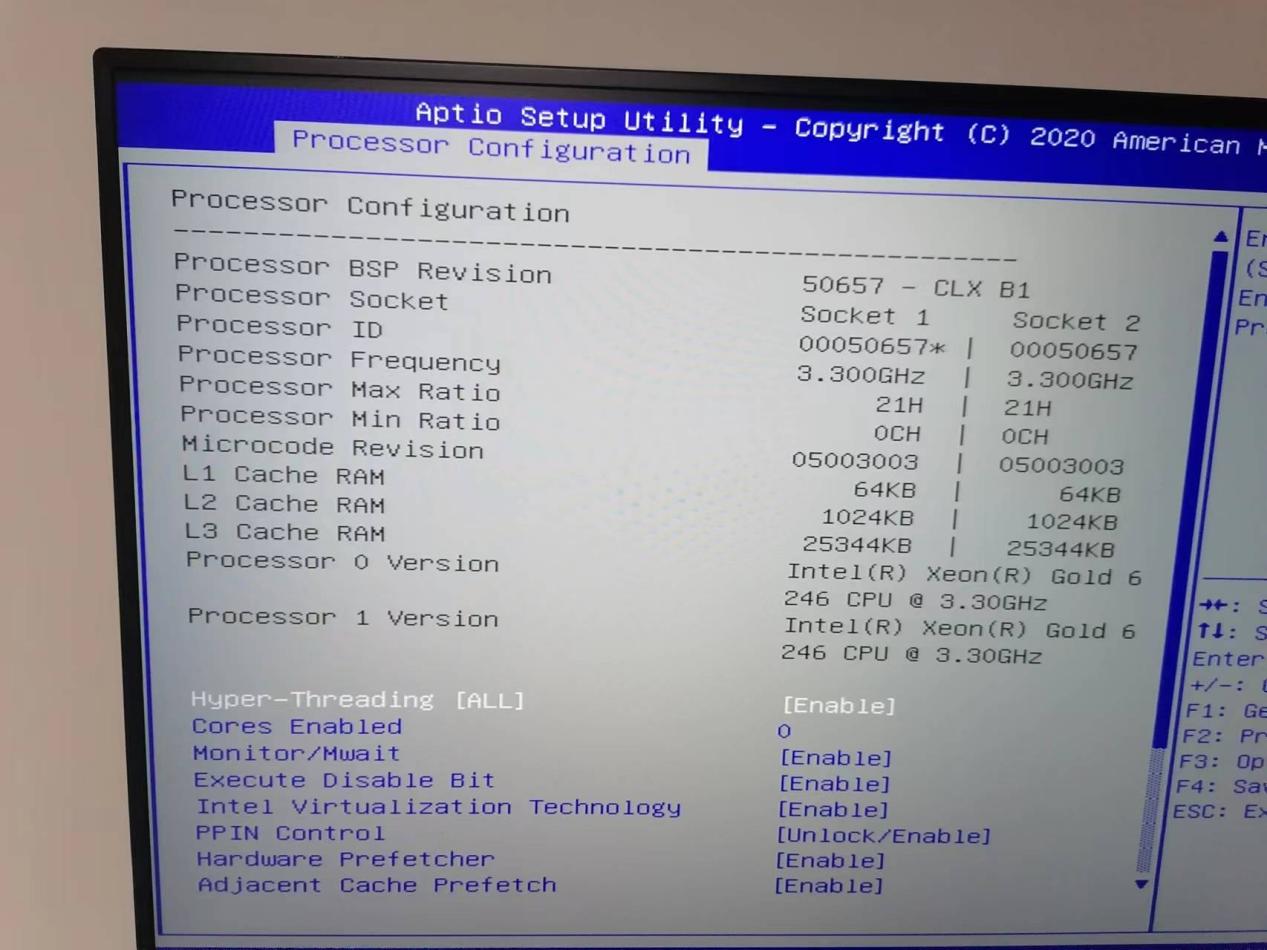
“Boot Option”选择刚安装系统的本地硬盘

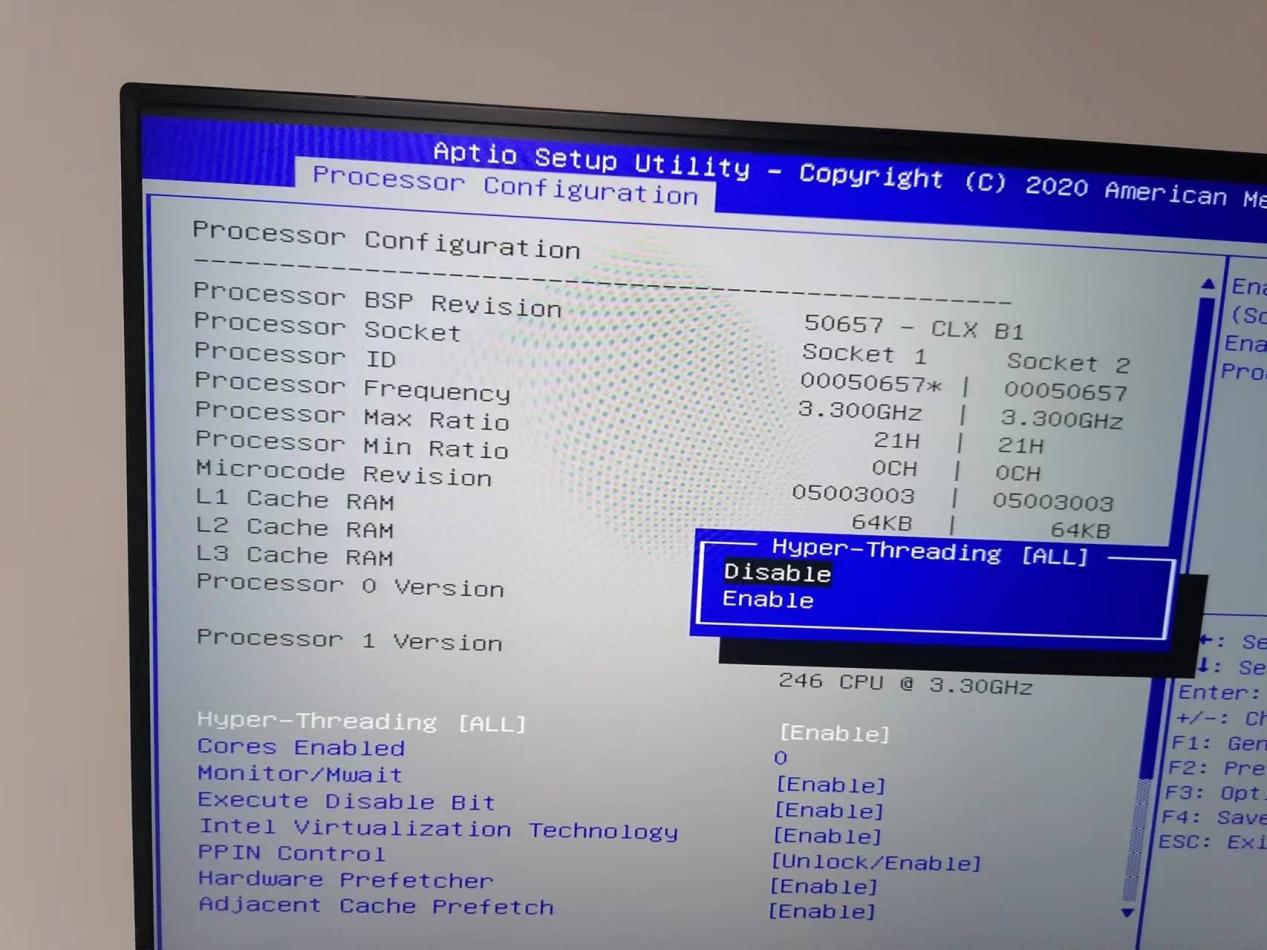


禁用超线程，选择“Advanced”=>”CPU configuration”

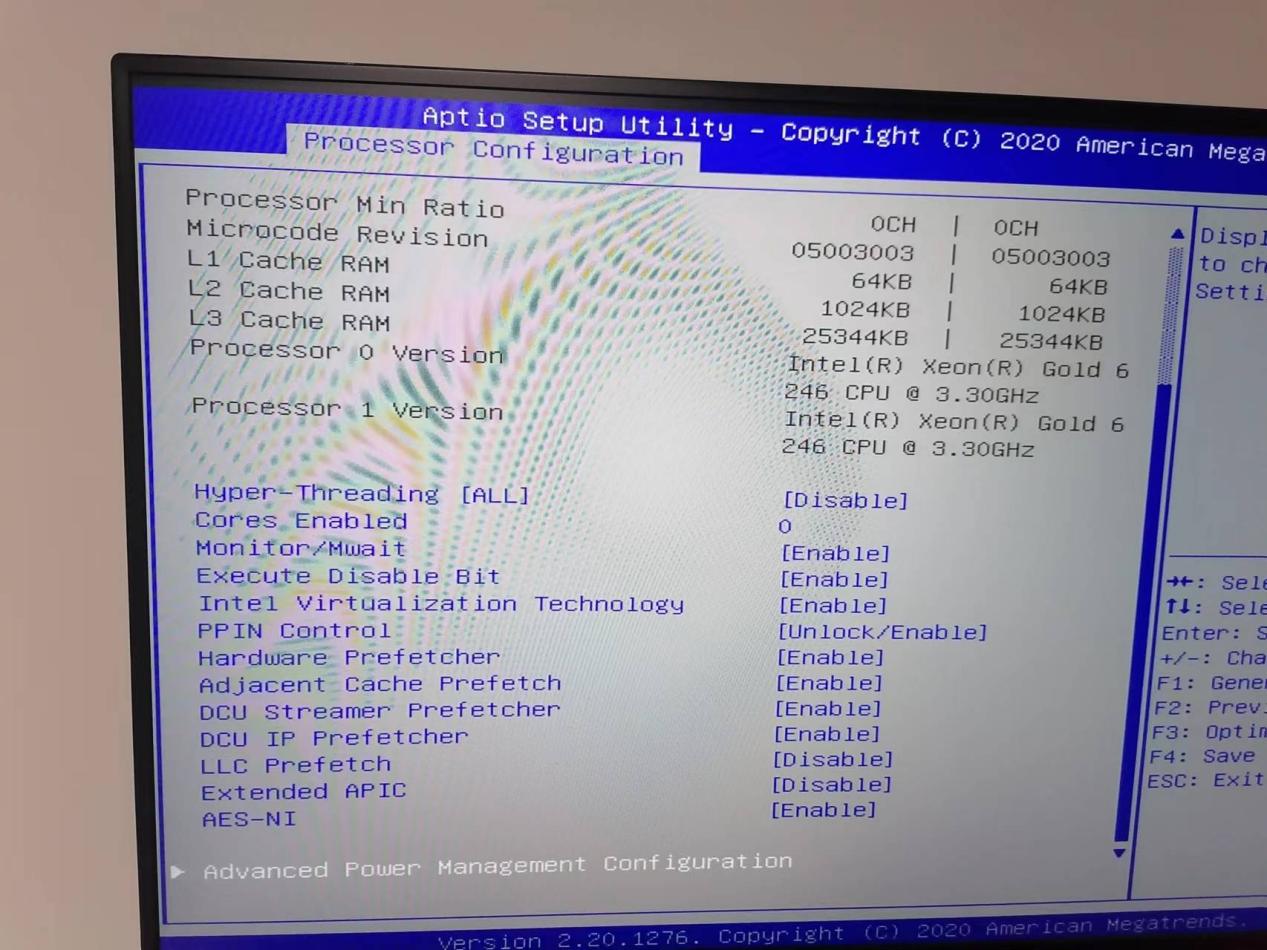


将“Hyper-Threading”改成“Disable”

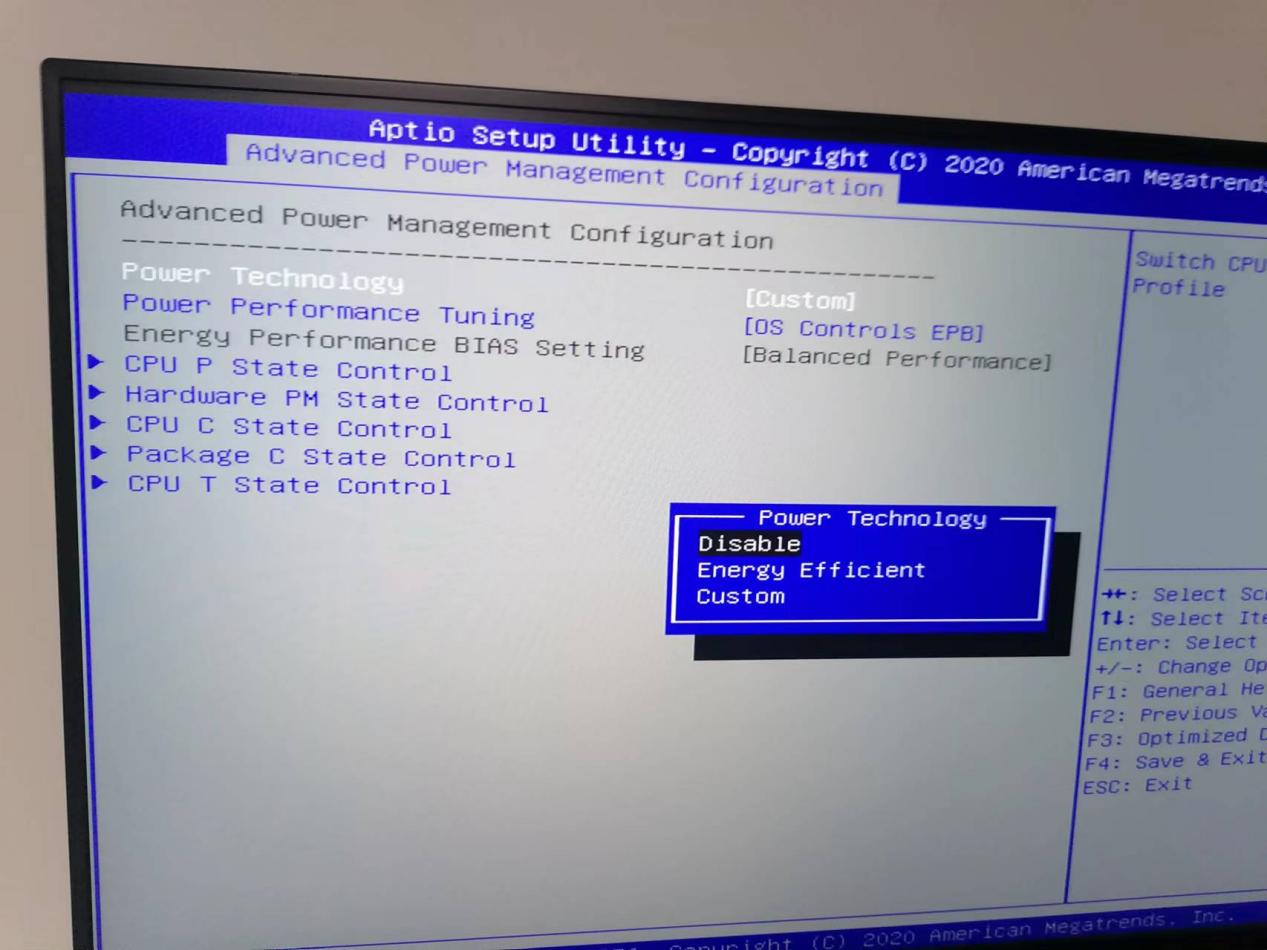




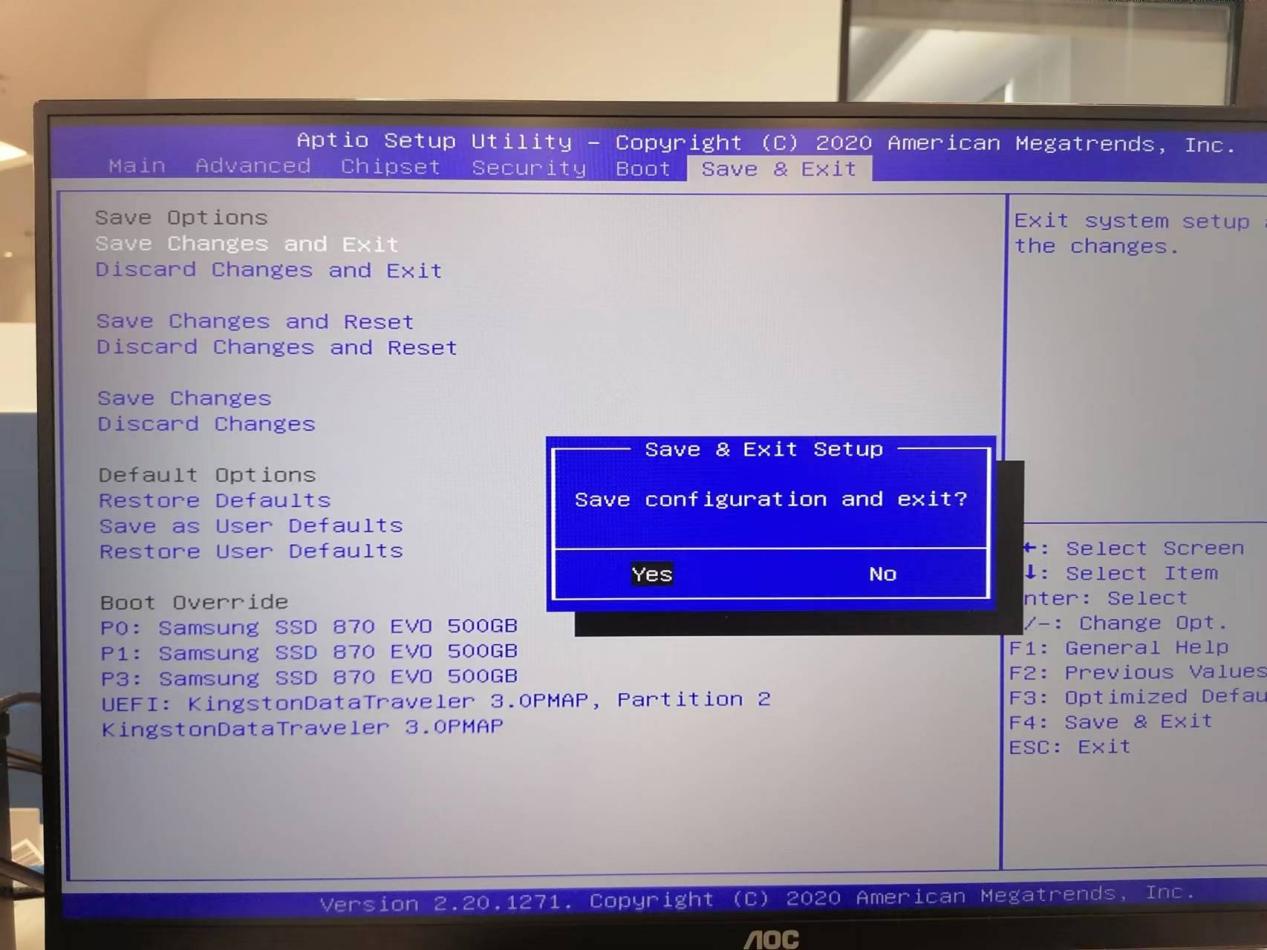
禁用电源管理，选择“Advanced Power Management Configuration”



将“Power Technology”修改未“Disable”

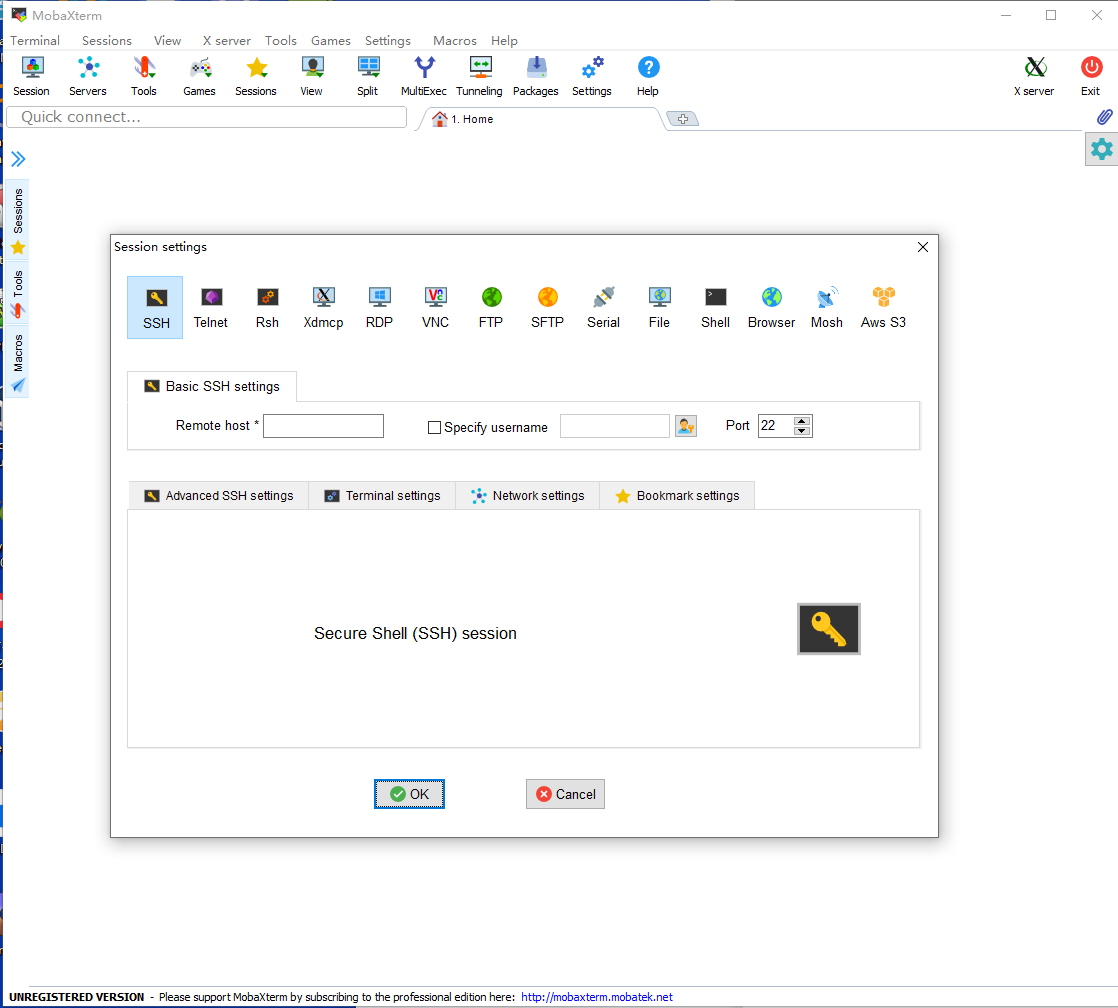


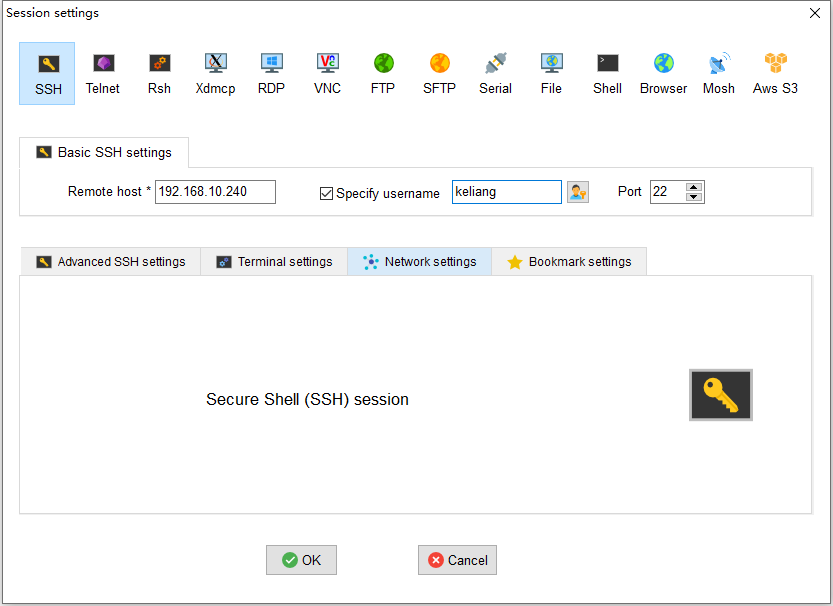
保存重启



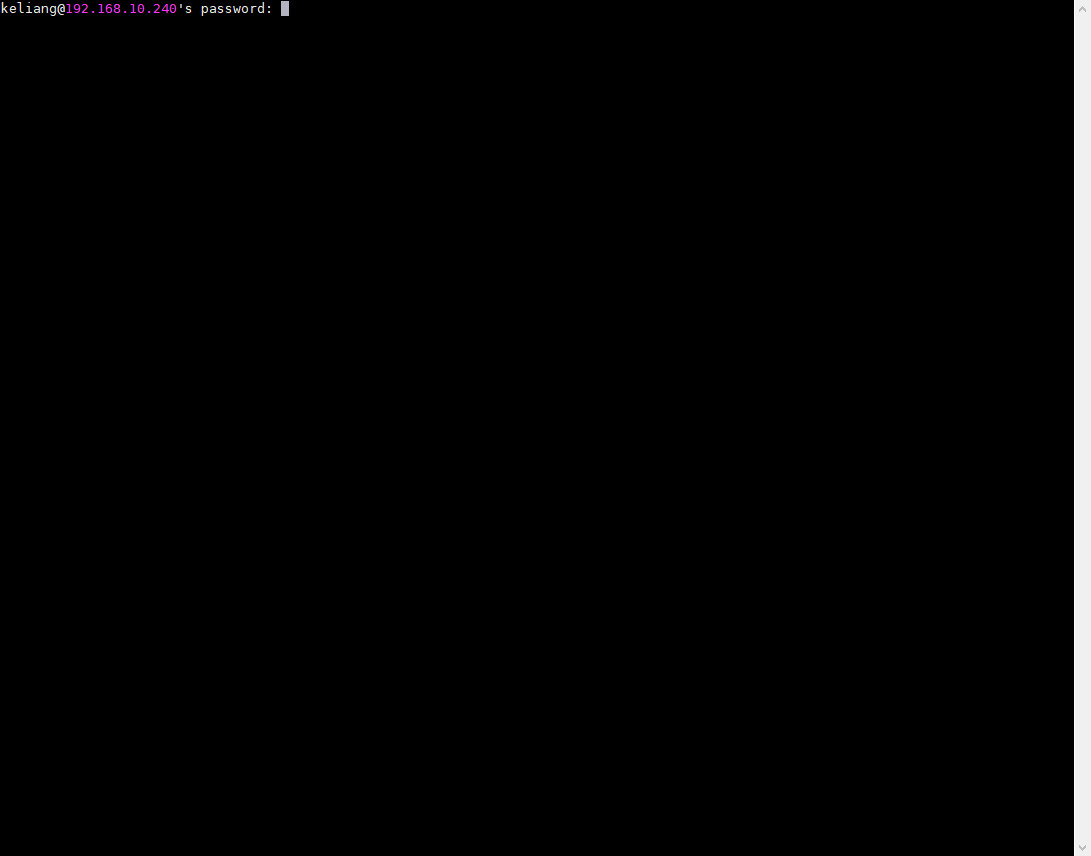
**三．替换内核、安装分区工具**

打开MobaXterm,点击“New session”,输入之前设置的用户名

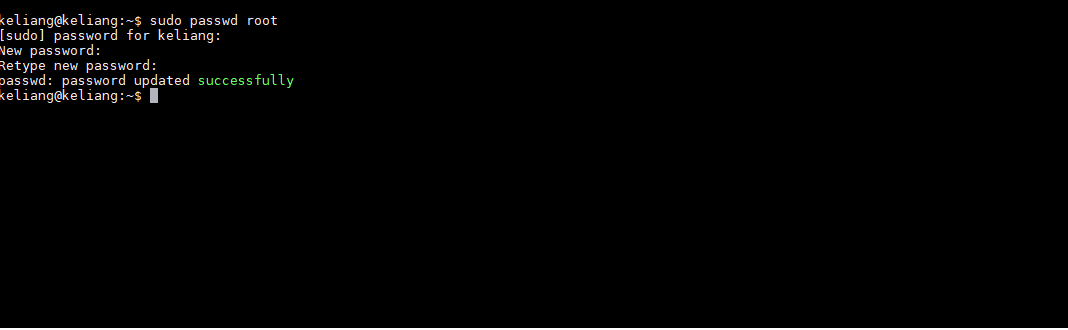




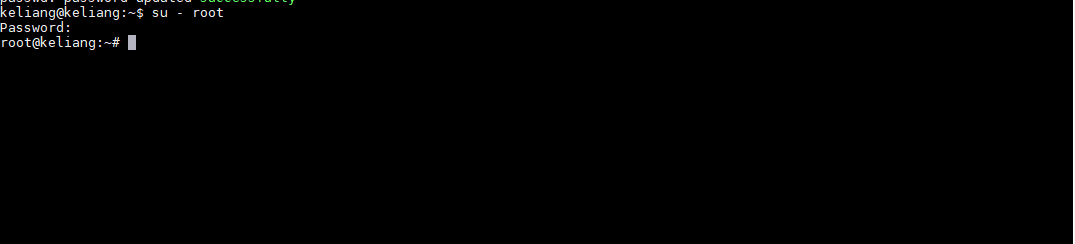
输入密码登入



输入sudo passwd root设置root密码，

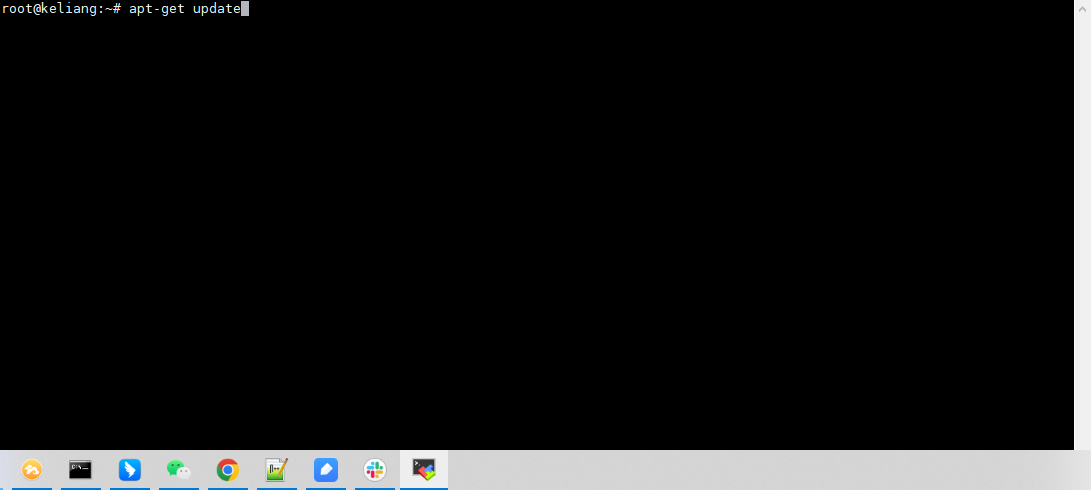


输入 su - root切换到root用户



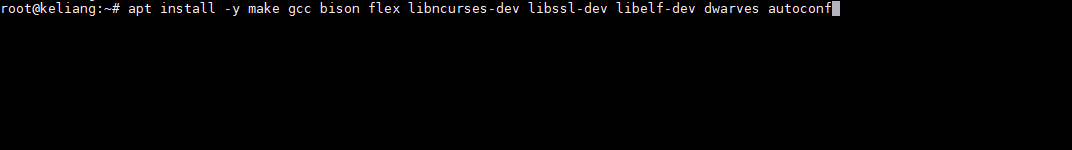
保证下位机接入互联网，更新软件包。

apt-get update



安装必要软件，

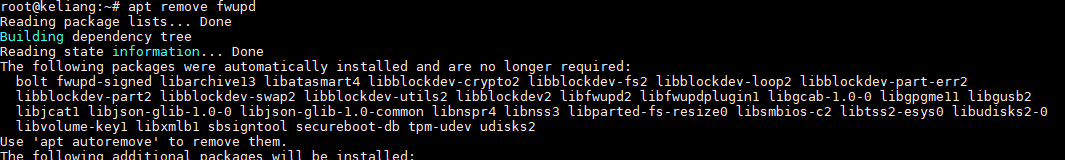
apt install -y make gcc bison flex libncurses-dev libssl-dev libelf-dev dwarves autoconf

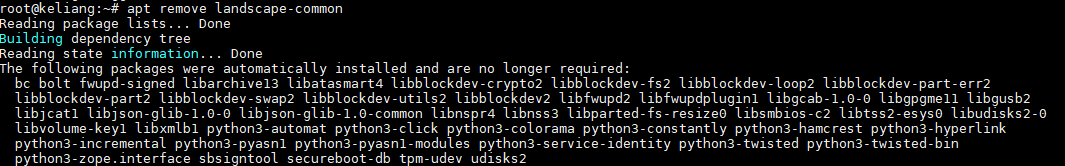


卸载无用软件

apt remove fwupd

apt remove landscape-common





创建文件夹/usr/src/kernel，授权

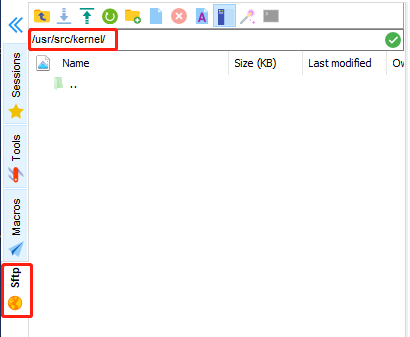
mkdir /usr/src/kernel

chmod 777 /usr/src/kernel

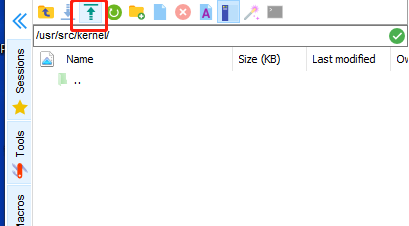




右侧菜单栏选择“sftp”并在地址栏输入“/usr/src/kernel”



将linux-5.4.87\_v1\_20220711.tar.gz、syspart\_for\_ubuntu.zip上传至该目录



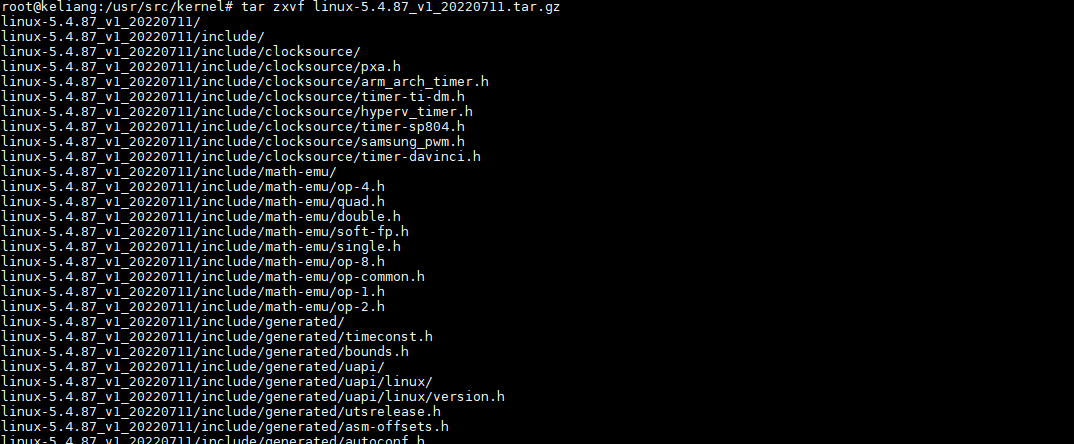
进入目录

cd /usr/src/kernel/



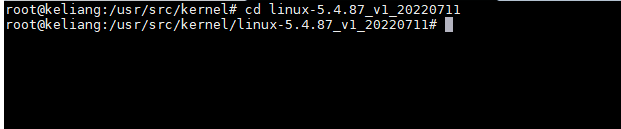
解压

tar zxvf linux-5.4.87\_v1\_20220711.tar.gz



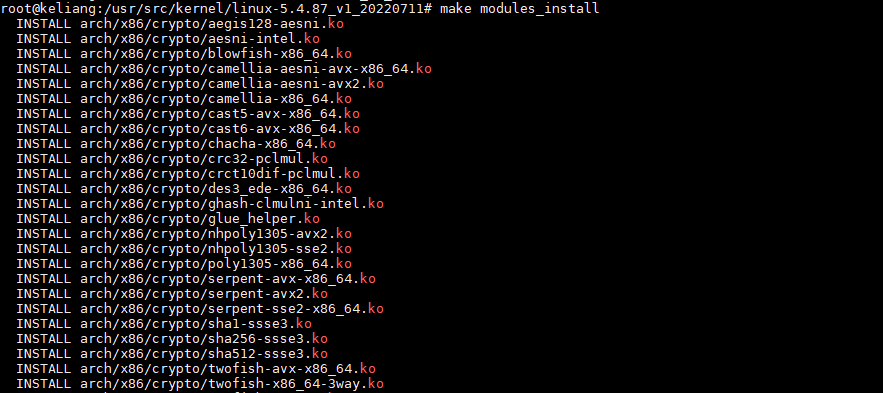
进入解压目录

cd linux-5.4.87\_v1\_20220711



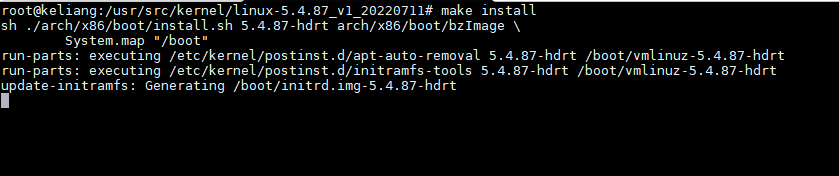
安装模块

make modules\_install



安装内核

make install



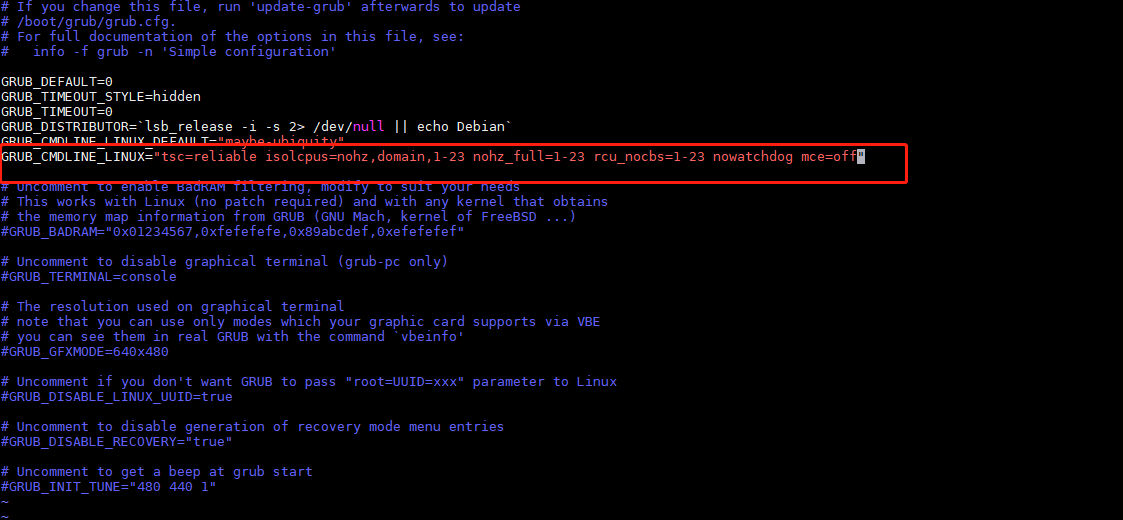
设置系统参数

vim /etc/default/grub

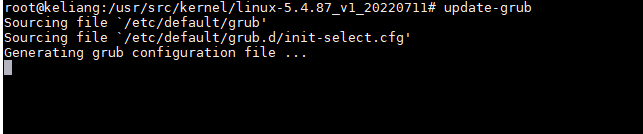
在GRUB\_CMDLINE\_LINUX行中添加

"tsc=reliable isolcpus=nohz,domain,1-23 nohz\_full=1-23 rcu\_nocbs=1-23 nowatchdog mce=off"



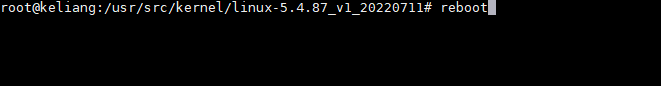


更新grub

update-grub

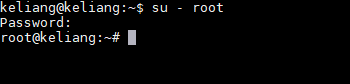
重启系统：

Reboot



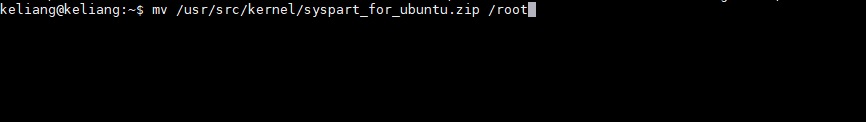
重启后通过MobaXterm重新连接到下位机，并切换到root用户

su - root



将syspart\_for\_ubuntu.zip移至root目录下

mv /usr/src/kernel/syspart\_for\_ubuntu.zip /root

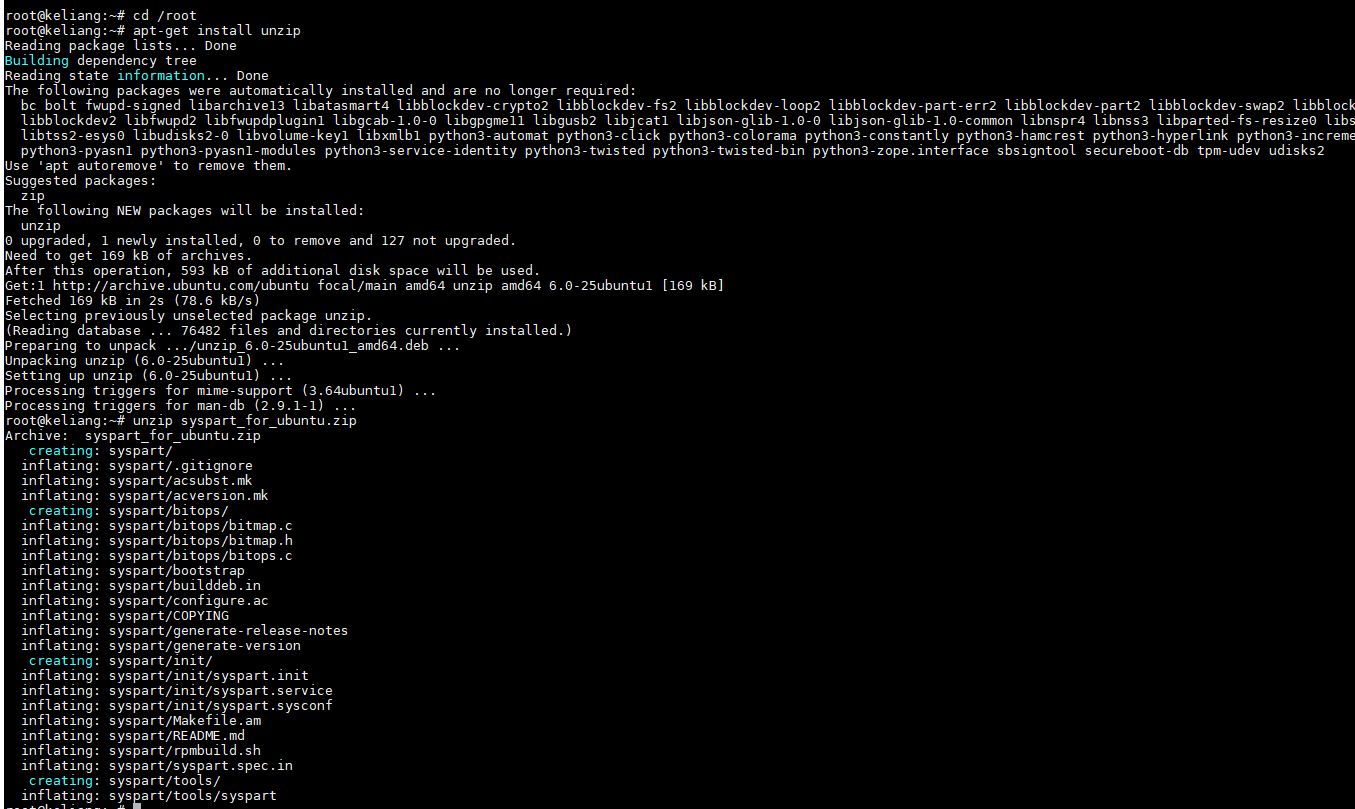


进入root目录，安装unzip,并解压文件

cd /root

apt-get install unzip

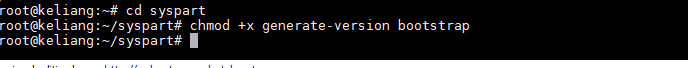
unzip syspart\_for\_ubuntu.zip



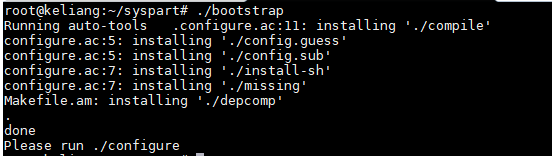
进入解压目录,文件添加执行权限

cd syspart

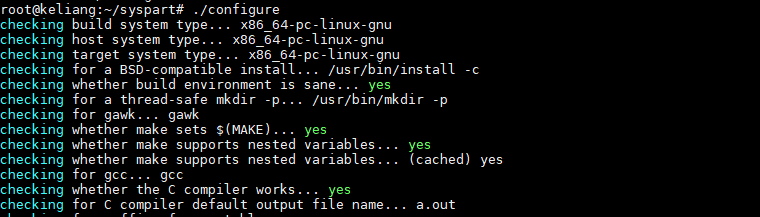
chmod +x generate-version bootstrap



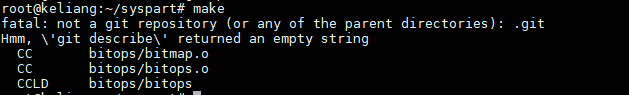
执行：./bootstrap



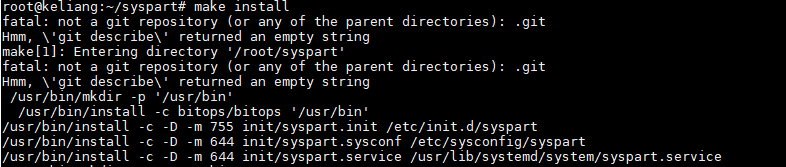
配置：./configure



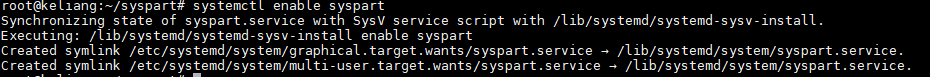
编译：make



安装：make install



加入开机启动：systemctl enable syspart



重启系统：reboot

