

H3C G5 PKG 系列服务器通过 BMC 挂载镜像 安装 Ubuntu Server 22.04 操作系统方法

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一. 适用范围与注意事项

- 本文档旨在说明 H3C G5 PKG 系列服务器通过 BMC 安装操作系统，并以 R4930 G5 H3 PKG 服务器安装 Ubuntu Server 22.04 为例进行安装步骤说明。
安装过程中您可能需要借助其他工具完成部分操作。如需了解详细介绍，请参考本文档<安装前准备>的内容查看。
- 实际情况是否适用本文档，请通过下面导航链接进行确认：
<https://zhiliao.h3c.com/Theme/details/208474>
- 提示：
本文档中的信息（包括产品，软件版本和设置参数）仅作参考示例，具体操作与目标需求设置请以实际为准。
本文档不定期更新维护，请以发布的最新版本为准。

二. 安装准备

1. 系统兼容性查询
具体确认方法请参考：<https://zhiliao.h3c.com/Theme/details/207728>
2. 阵列配置
如果有配置阵列的需求，请在阵列配置完成后再安装系统。
具体阵列配置方法请参考：<https://zhiliao.h3c.com/Theme/details/208527>

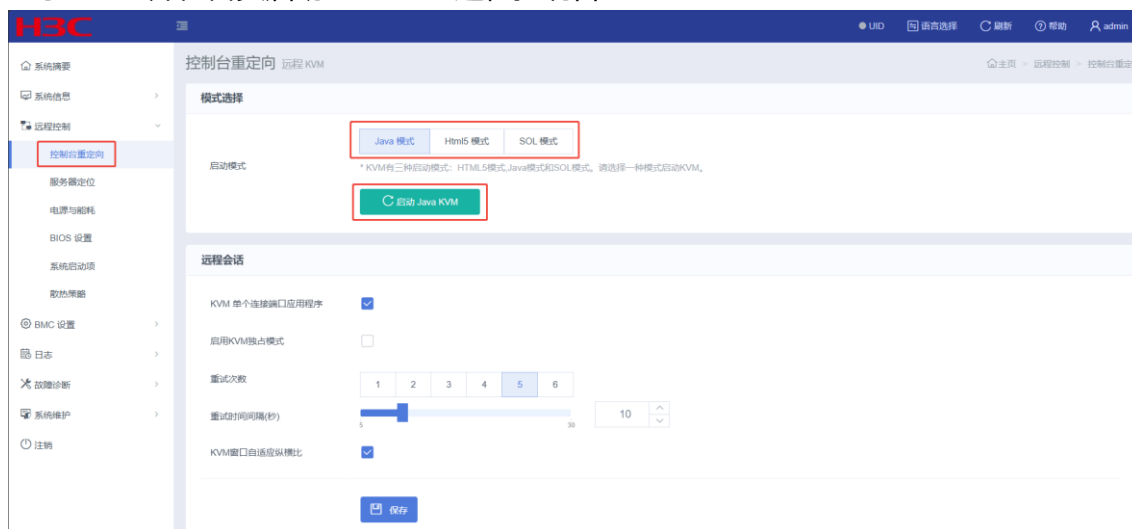
3. 连接 BMC 与启用远程控制台

具体方法请参考：<https://zhiliao.h3c.com/theme/details/231698>

三. 安装步骤

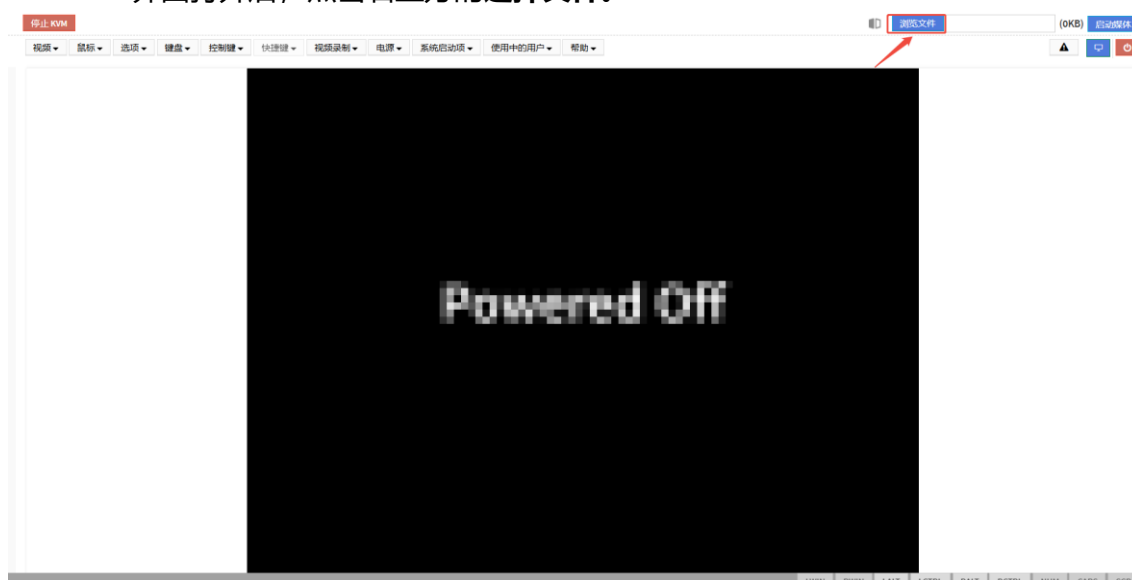
1. 挂载系统安装介质 (以 H5 KVM 为例)

1.1 登录 BMC 并在首页启动 H5 KVM 远程控制台。

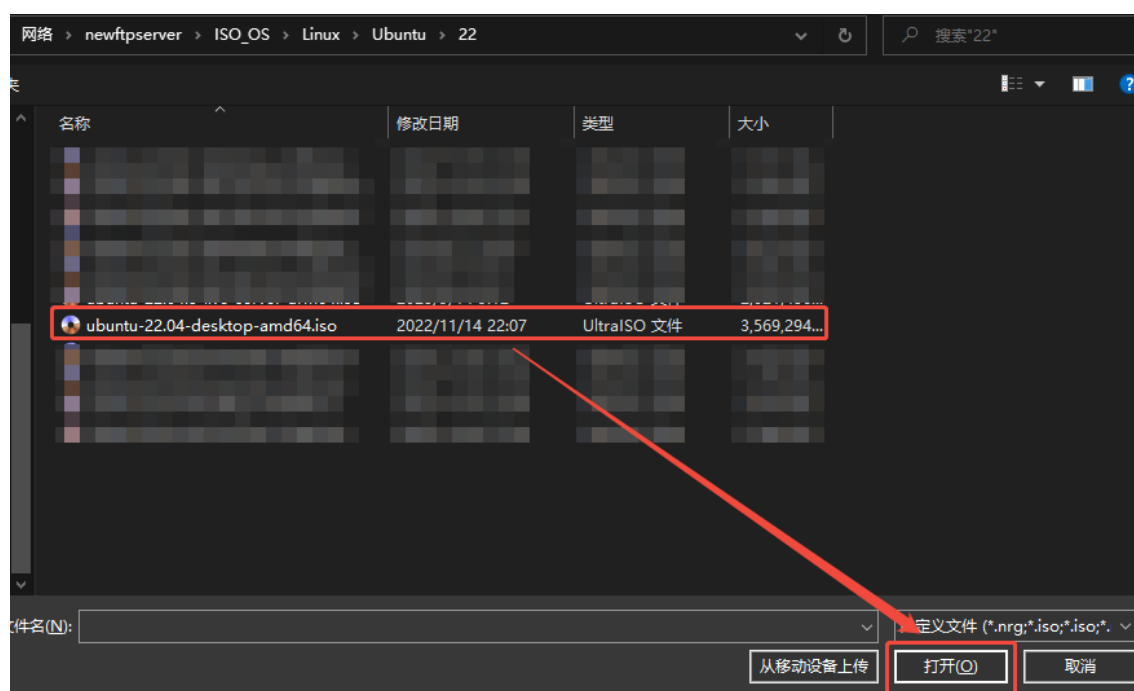


注：基于 BMC 固件版本不同，页面布局可能略有差异。若在首页未查看到远程控制台选项，可在导航菜单中找到“远程控制”后启用控制台功能。

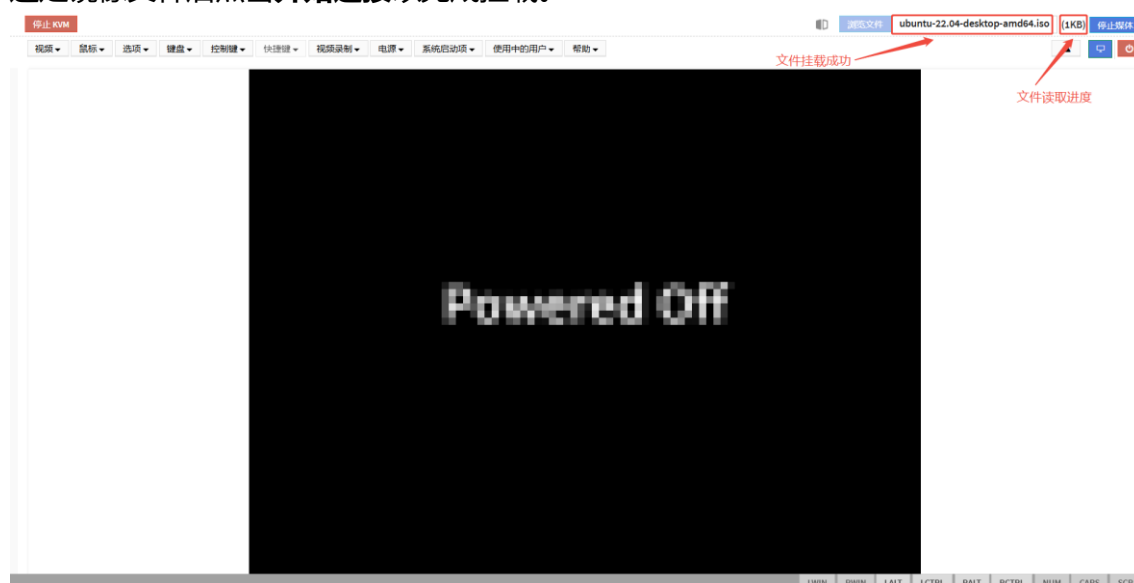
1.2 H5 KVM 界面打开后，点击右上方的**选择文件**。



1.3 浏览到本地的镜像文件。



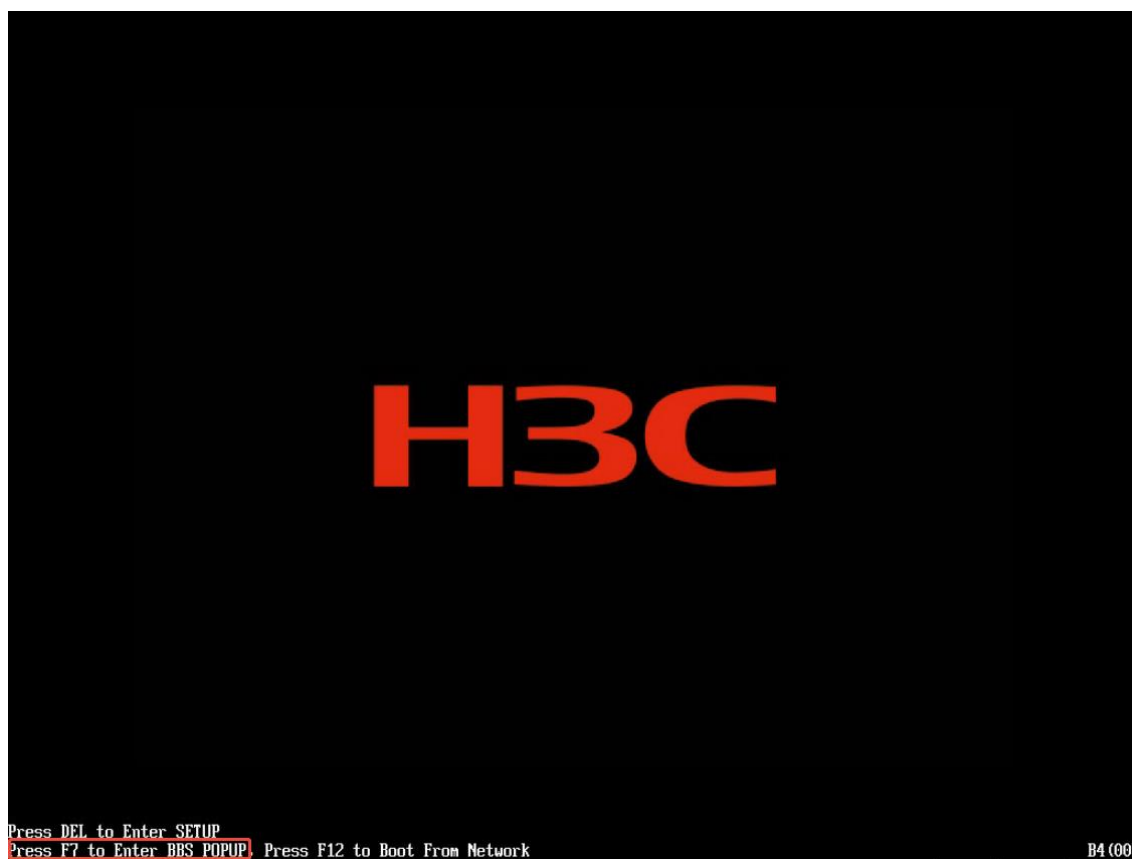
1.4 选定镜像文件后点击**开始连接**以完成挂载。



注：文件读取进度可能不会一次性全部加载，待开始引导系统文件后加载进度将继续读取。

2. 引导系统安装

2.1 启服务器，在开机自检界面按下 **F7**，选择启动项。

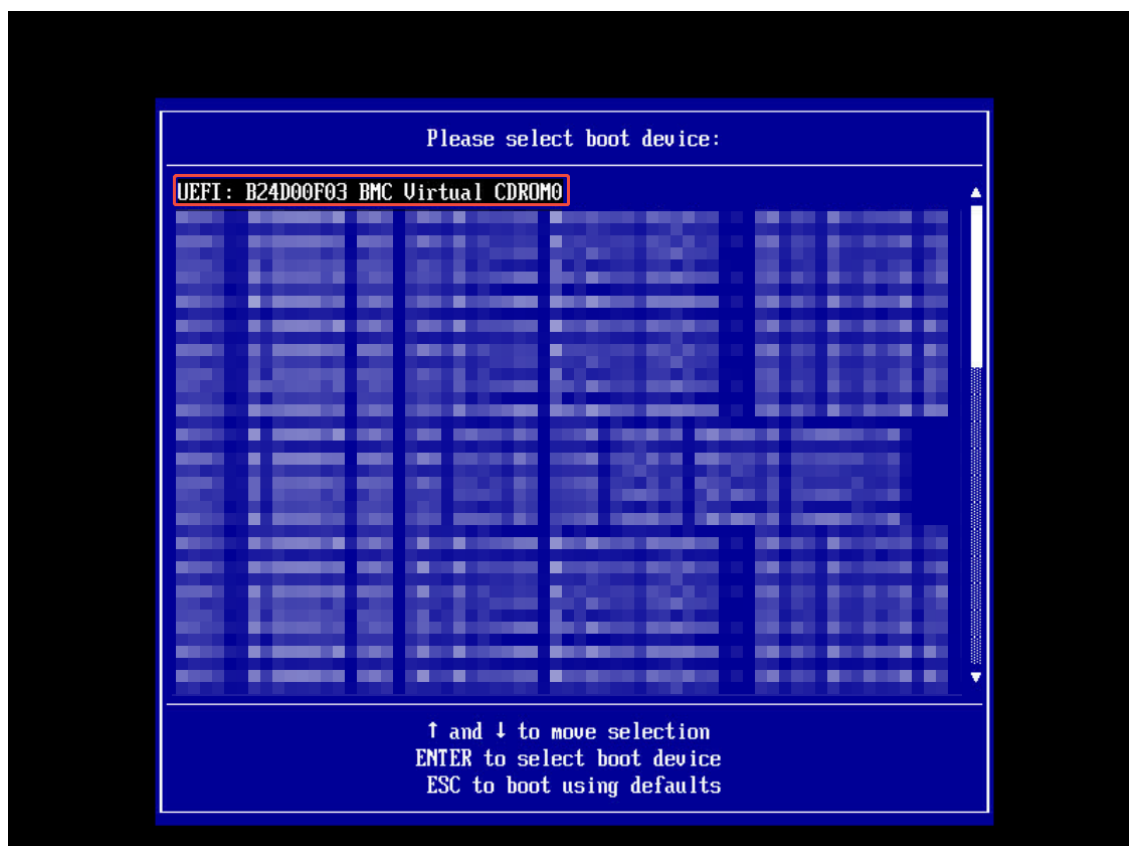


等待进入 F7 引导项界面

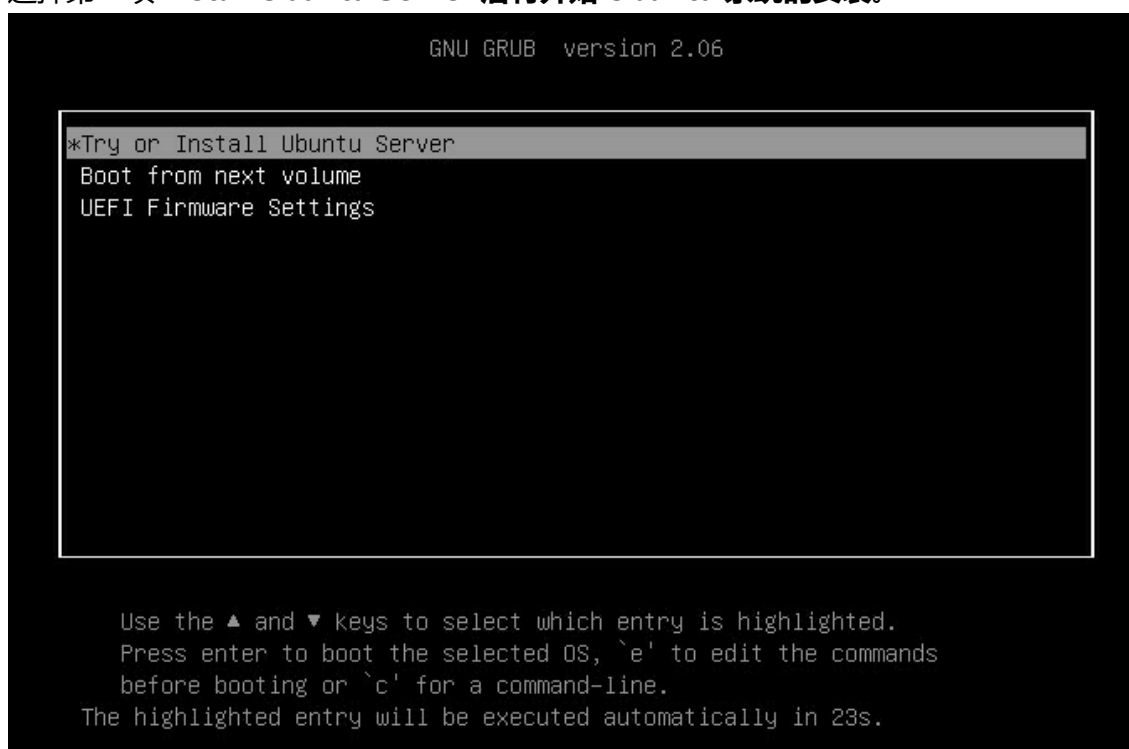


2.2 选择 OS 镜像所在的介质。

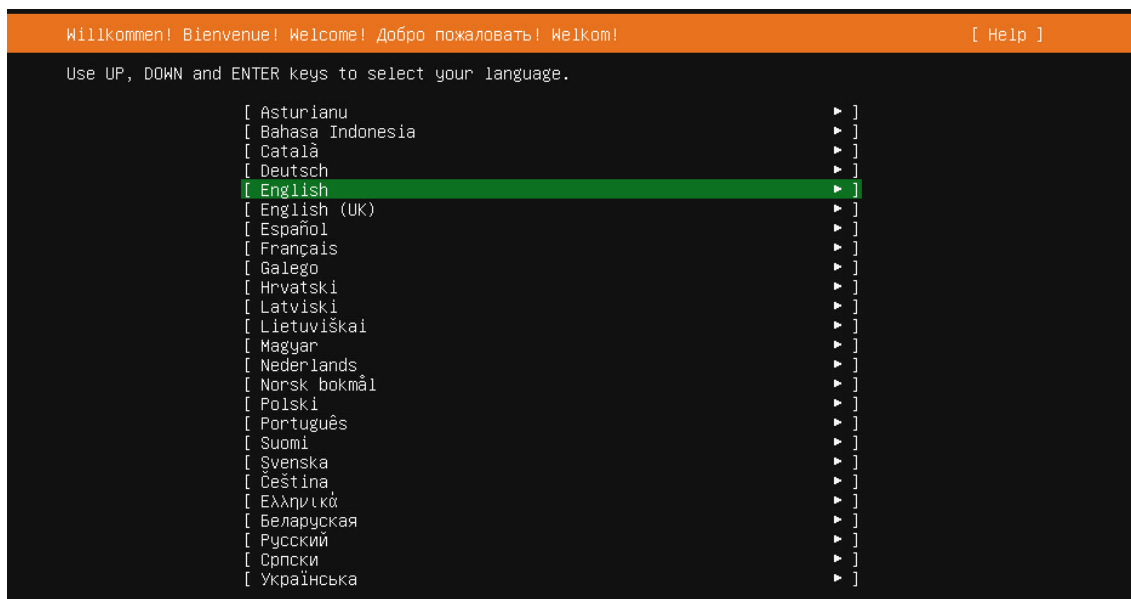
本例中通过远程控制台挂载虚拟媒体，所以选择 **AMI Virtual CDROM0 1.00**。



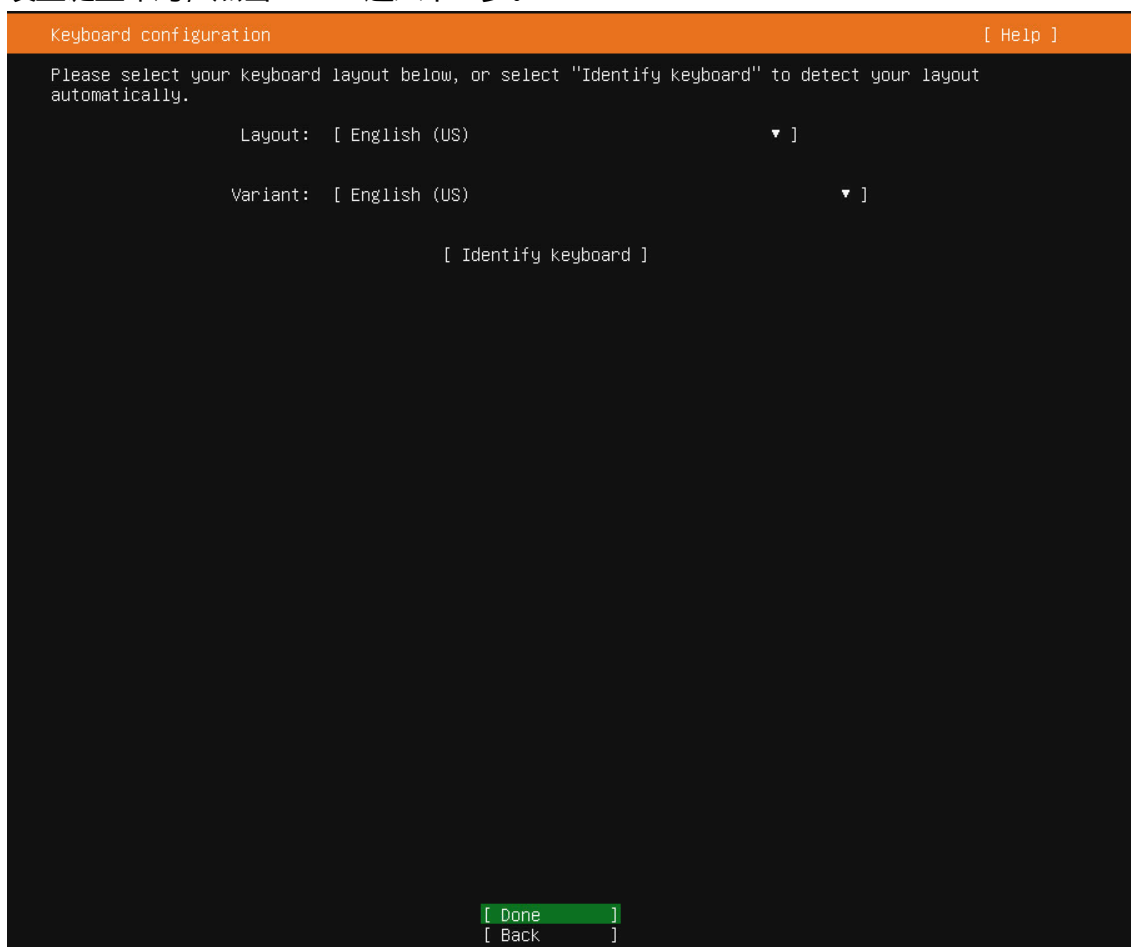
2.3 选择第一项 **Install Ubuntu Server** 后将开始 **Ubuntu** 系统的安装。



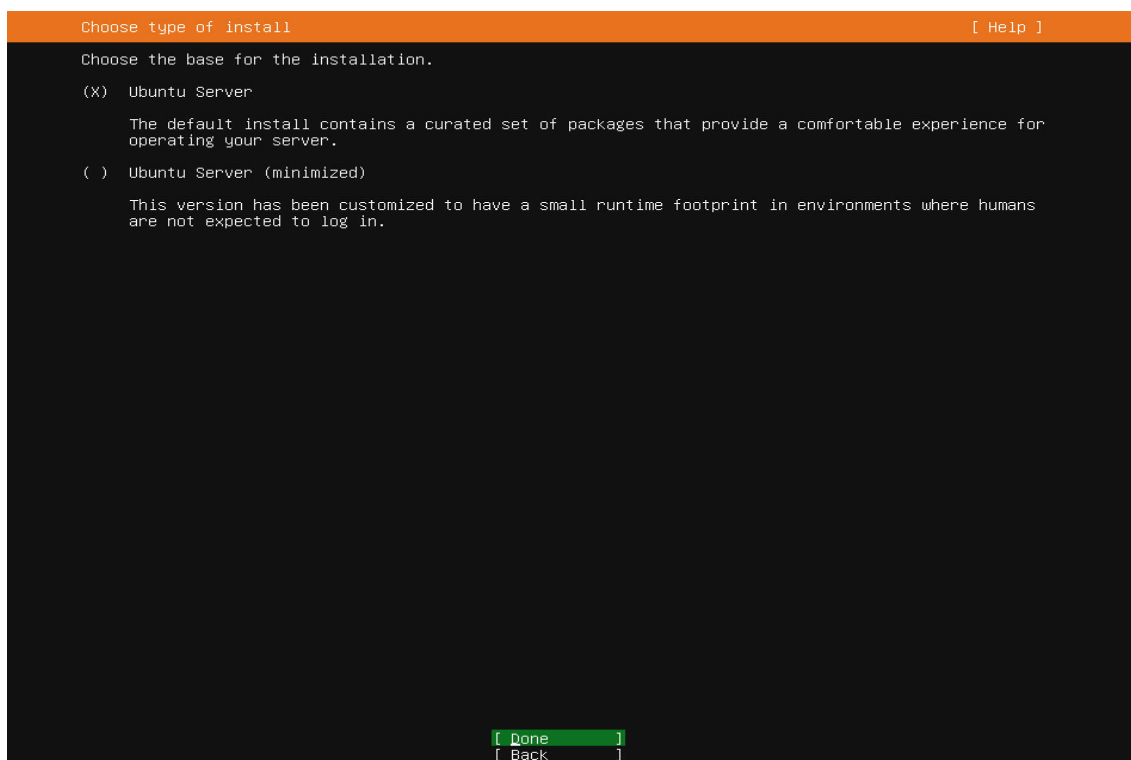
2.4 选择语言。



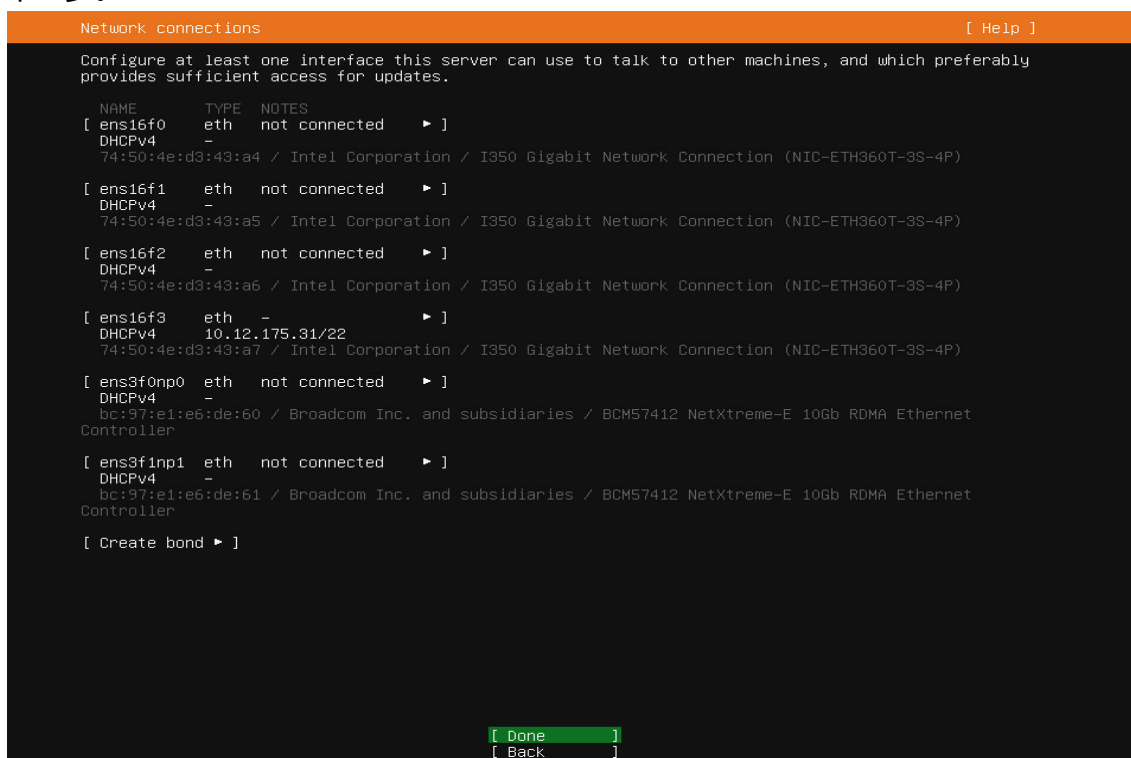
2.5 设置键盘布局，点击 **Done** 进入下一步。



2.6 选择一个系统类型进行安装，回车 **Done** 进入下一步。



2.7 设置网络链接，可根据需求修改网卡获取 IP 地址模式，默认是 DHCP，配置好后选择 **Done**。如果不需要在此界面配置，可以选择 **Continue without network** 配置好后选择 **Done** 进入下一步。



2.8 设置代理服务器，可以根据需要是否配置，不需要进行配置，选择 **Done** 按<Enter>键进入下

一步即可。

Configure proxy [Help]

If this system requires a proxy to connect to the internet, enter its details here.

Proxy address:

If you need to use a HTTP proxy to access the outside world, enter the proxy information here. Otherwise, leave this blank.

The proxy information should be given in the standard form of "http://[[user] [:pass]@]host[:port]/".

[Done]
[Back]

2.9 设置镜像源地址，在 **Mirror address** 输入框中输入镜像源地址，若无特殊要求可以保持默认设置，选择 **Done** 按<Enter>键进入下一步。

Configure Ubuntu archive mirror [Help]

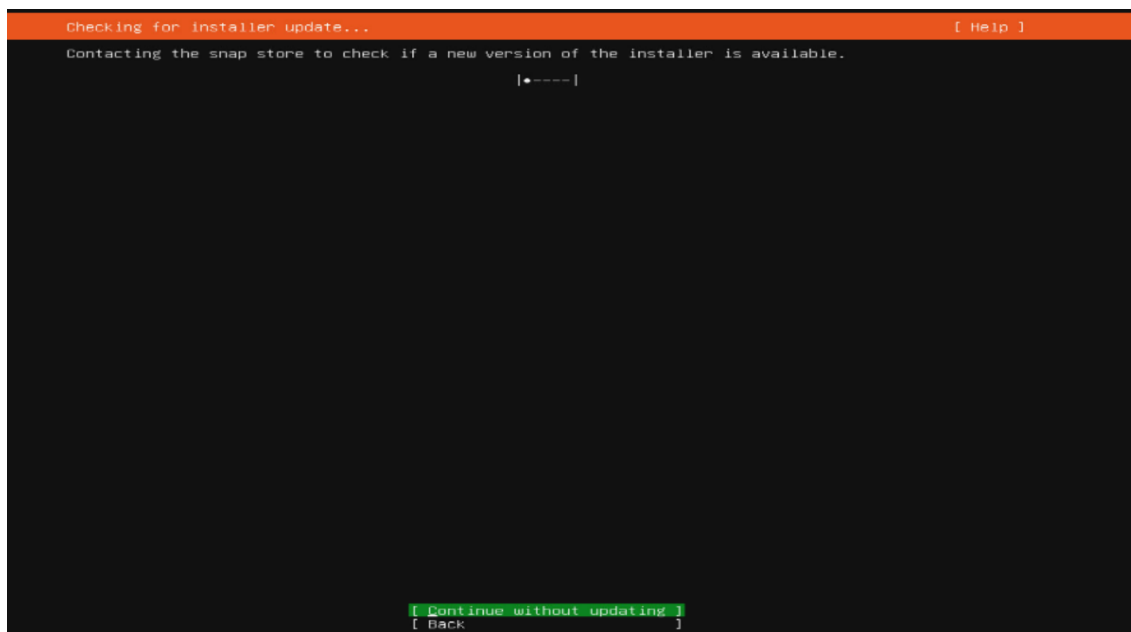
If you use an alternative mirror for Ubuntu, enter its details here.

Mirror address:

You may provide an archive mirror that will be used instead of the default.

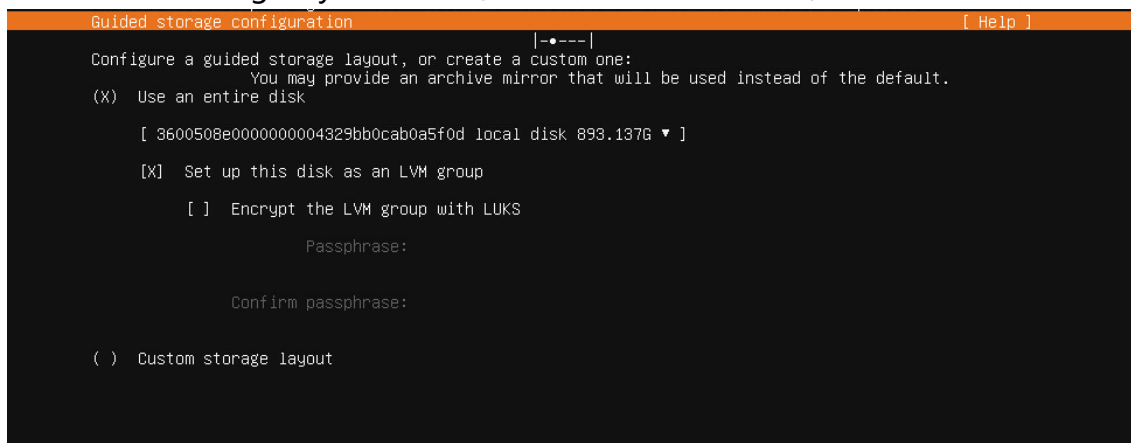
[Done]
[Back]

2.10 检查安装包更新，选择 **Continue without updating** 选项按<Enter>键进入下一步。



2.11 设置磁盘分区，可以选择自动或者手动分区。

- Use an entire disk 模式：选择一个磁盘后将光标移动到 **Done** 按键，系统将按照默认设置对磁盘进行分区。
- Custom storage layout 模式：将光标移动到 **Done** 按键将进入手动分区设置界面。



2.12 以 Use an entire disk 为例，根据需要进行分区配置 。

```
Storage configuration [ Help ]
|--|

FILE SYSTEM SUMMARY
You may provide an archive mirror that will be used instead of the default.
MOUNT POINT  SIZE  TYPE  DEVICE TYPE
[ /           100.000G new ext4 new LVM logical volume ▶ ]
[ /boot       2.000G new ext4 new partition of local disk ▶ ]
[ /boot/efi   1.049G new fat32 new partition of local disk ▶ ]

AVAILABLE DEVICES

DEVICE                                TYPE                                SIZE
[ ubuntu-vg (new)                     LVM volume group                   890.082G ▶ ]
free space                             790.082G ▶ ]

[ 35002538e013675c6                   local disk                         894.253G ▶ ]
free space                             894.250G ▶ ]

[ Create software RAID (md) ▶ ]
[ Create volume group (LVM) ▶ ]

USED DEVICES

DEVICE                                TYPE                                SIZE
[ ubuntu-vg (new)                     LVM volume group                   890.082G ▶ ]
ubuntu-lv    new, to be formatted as ext4, mounted at / 100.000G ▶ ]

[ 3600508e000000004329bb0cab0a5f0d   local disk                         893.137G ▶ ]
partition 1 new, primary ESP, to be formatted as fat32, mounted at /boot/efi 1.049G ▶ ]
partition 2 new, to be formatted as ext4, mounted at /boot 2.000G ▶ ]
partition 3 new, PV of LVM volume group ubuntu-vg 890.085G ▶ ]
```

2.13 弹窗提示确认清除磁盘数据，选择 **Continue** 按<Enter>键进入下一步。

```
Storage configuration [ Help ]
|--|

FILE SYSTEM SUMMARY
MOUNT POINT  SIZE  TYPE  DEVICE TYPE
[ /           100.000G new ext4 new LVM logical volume ▶ ]
[ /boot       2.000G new ext4 new partition of local disk ▶ ]
[ /boot/efi   1.049G new fat32 new partition of local disk ▶ ]

AVAILABLE DEVICES

DEVICE                                TYPE                                SIZE
[ ubuntu-vg (new)                     LVM volume group                   890.082G ▶ ]
free space                             790.082G ▶ ]

[ 35002538e013675c6                   local disk                         894.253G ▶ ]
free space                             894.250G ▶ ]

[ Create software RAID (md) ▶ ]
[ Create volume group (LVM) ▶ ]

USED DEVICES

DEVICE                                TYPE                                SIZE
[ ubuntu-vg (new)                     LVM volume group                   890.082G ▶ ]
ubuntu-lv    new, to be formatted as ext4, mounted at / 100.000G ▶ ]

[ 3600508e000000004329bb0cab0a5f0d   local disk                         893.137G ▶ ]
partition 1 new, primary ESP, to be formatted as fat32, mounted at /boot/efi 1.049G ▶ ]
partition 2 new, to be formatted as ext4, mounted at /boot 2.000G ▶ ]
partition 3 new, PV of LVM volume group ubuntu-vg 890.085G ▶ ]

Confirm destructive action

Selecting Continue below will begin the installation process and
result in the loss of data on the disks selected to be formatted.

You will not be able to return to this or a previous screen once the
installation has started.

Are you sure you want to continue?

[ No ]
[ Continue ]
```

2.14 设置用户名、服务器名及密码，设置完成后将光标移动到 **Done**，按<Enter>键进入下一步。

Profile setup [Help]

Enter the username and password you will use to log in to the system. You can configure SSH access on the next screen but a password is still needed for sudo.

Your name: test

Your server's name: administrator
The name it uses when it talks to other computers.

Pick a username: administrator

Choose a password: *****

Confirm your password: *****

[Done]

2.15 按<空格键>选择 **Install OpenSSH server**，将光标移到 **Done** 按<Enter>进行安装。

注：需要安装 OpenSSH 服务，否则系统完成安装后无法使用 SSH。

SSH Setup [Help]

You can choose to install the OpenSSH server package to enable secure remote access to your server.

[X] Install OpenSSH server

Import SSH identity: [No ▼]
You can import your SSH keys from GitHub or Launchpad.

Import Username:

[X] Allow password authentication over SSH

[Done]
[Back]

2.16 进行操作系统安装，操作系统安装需要等待一段时间，无需进行其他操作。

```
Installing system [ Help ]

subiquity/Early/apply_autoinstall_config
subiquity/Reporting/apply_autoinstall_config
subiquity/Error/apply_autoinstall_config
subiquity/Userdata/apply_autoinstall_config
subiquity/Package/apply_autoinstall_config
subiquity/Debconf/apply_autoinstall_config
subiquity/Kernel/apply_autoinstall_config
subiquity/Zdev/apply_autoinstall_config
subiquity/Late/apply_autoinstall_config
configuring apt
  curtin command in-target
installing system
  curtin command install
    preparing for installation
    configuring storage
      running 'curtin block-meta simple'
      curtin command block-meta
        removing previous storage devices
        configuring disk: disk-sda
        configuring partition: partition-0
        configuring format: format-0
        configuring partition: partition-1
        configuring format: format-1
        configuring partition: partition-2
        configuring lvm_volgroup: lvm_volgroup-0
        configuring lvm_partition: lvm_partition-0
        configuring format: format-2
        configuring mount: mount-2
        configuring mount: mount-1
        configuring mount: mount-0
    writing install sources to disk
      running 'curtin extract'
      curtin command extract
        acquiring and extracting image from cp:///tmp/tmpeam7s9zm/mount |

[ View full log ]
```

2.17 操作系统安装完成，将光标移动到 **Reboot Now** 按<Enter>键重启服务器。

```
Install complete! [ Help ]

curtin command block-meta
configuring partition: partition-2
configuring format: format-2
configuring mount: mount-2
configuring mount: mount-1
configuring mount: mount-0
writing install sources to disk
  running 'curtin extract'
  curtin command extract
    acquiring and extracting image from cp:///tmp/tmpeam7s9zm/mount
configuring installed system
  running 'mount --bind /cdrom /target/cdrom'
  running 'curtin curthooks'
  curtin command curthooks
    configuring apt configuring apt
    installing missing packages
    installing packages on target system: ['efibootmgr', 'grub-efi-amd64',
'grub-efi-amd64-signed', 'shim-signed']
    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
  installing openssh-server
  curtin command system-install
  downloading and installing security updates
  curtin command in-target /

[ View full log ]
[ Cancel update and reboot ]
```

```

Install complete! [ Help ]
└─┬─┘
  │  curtin command block-meta
  │
  │  configuring mount: mount-2
  │  configuring mount: mount-1
  │  configuring mount: mount-0
  │  writing install sources to disk
  │  running 'curtin extract'
  │  curtin command extract
  │  acquiring and extracting image from cp:///tmp/tmpeam7s9zm/mount
  │  configuring installed system
  │  running 'mount --bind /cdrom /target/cdrom'
  │  running 'curtin curthooks'
  │  curtin command curthooks
  │  configuring apt configuring apt
  │  installing missing packages
  │  Installing packages on target system: ['efibootmgr', 'grub-efi-amd64',
  │  'grub-efi-amd64-signed', 'shim-signed']
  │  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
  │  installing openssh-server
  │  curtin command system-install
  │  downloading and installing security updates
  │  curtin command in-target \
  │  cancelling update
  │
  └─┬─┘
    │ [ View full log ]
    │ [ Rebooting... ]
  
```

2.18 在系统登录界面输入设置的账户名和密码，即可登录系统。

```
Ubuntu 22.04 LTS administrator tty1
administrator login: administrator
Password:
Welcome to Ubuntu 22.04 LTS (GNU/Linux 5.15.0-131-generic x86_64)

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

System information as of Wed Feb 12 05:13:48 AM UTC 2025

System load: 0.32080078125      Temperature:           41.0 C
Usage of /:  11.2% of 97.87GB   Processes:             1140
Memory usage: 1%               Users logged in:       0
Swap usage:  0%               IPv4 address for ens16f3: 10.12.175.31

113 updates can be applied immediately.
To see these additional updates run: apt list --upgradable

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.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

administrator@administrator:~$ _
```