

H3C 鲲鹏服务器通过 U 盘引导 安装 Ubuntu 22.04 for ARM 系统的安装方法

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一. 适用范围与注意事项

- 本文档旨在说明 H3C 鲲鹏服务器通过 U 盘引导安装 Ubuntu 22.04 for ARM 系统的安装方法，并以 R4960 G3 服务器安装 Ubuntu 22.04 for ARM 系统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. 系统安装介质获取
鲲鹏服务器使用的是 ARM 架构，选择的系统镜像需要适配，请从系统官网选择 for ARM 版本镜像

进行下载安装。

3. 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>

4. 连接 HDM-KP 与启用虚拟控制台

若通过 U 盘引导方式安装操作系统，您可通过外接显示器、键盘与鼠标完成与服务器的交互。

若未配置外设，请通过 HDM 控制台完成后续操作。

具体方法请参考：<https://zhiliao.h3c.com/theme/details/223857>

5. BIOS 配置

Support SPCR：此选项需要设置为 “Disabled”，“Disabled” 为默认值，进入 BIOS，选择 Advanced->MISC Config->Support SPCR 进行确认。

Support Smmu：当服务器配置了 Avago SAS3408iMR/Avago SAS3416iMR RAID 卡时，需要将参数 “Support Smmu” 设置为 “Disabled”，进入 BIOS，选择 Advanced->MISC Config->Support Smmu 进行确认。

三. 安装步骤

1. 挂载启动 U 盘

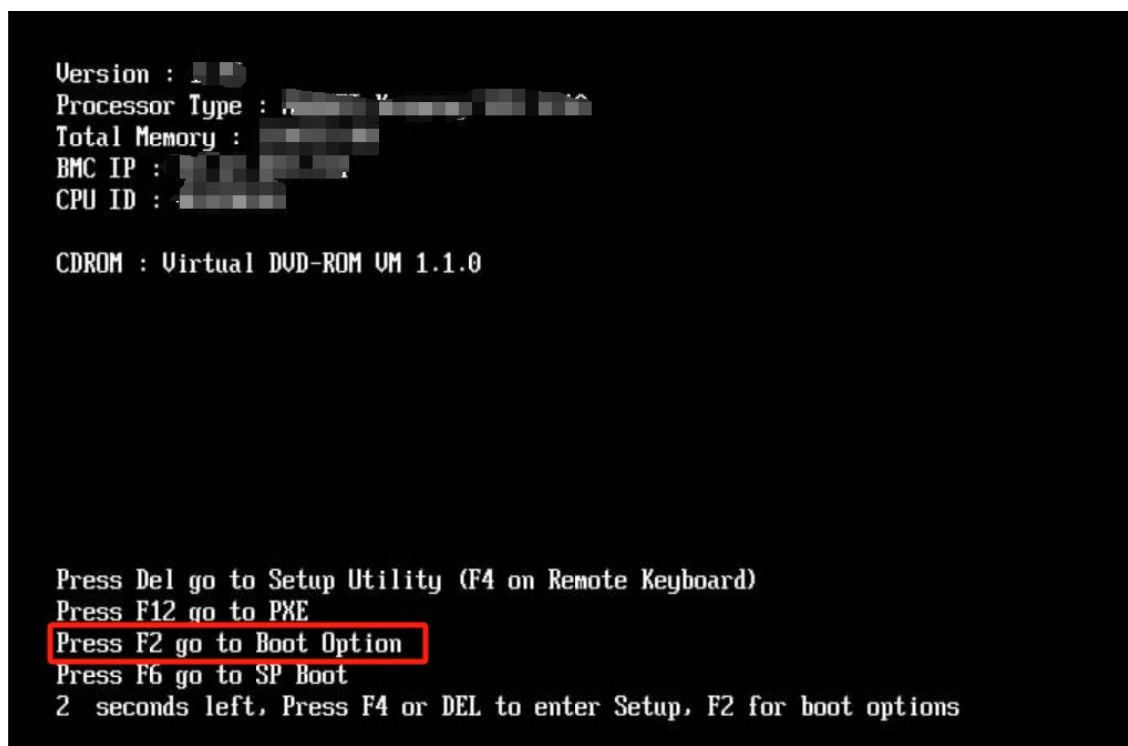
服务器通常默认配置多个 USB 接口，对外接口一般位于前后两侧面板。下图以 2U 服务器为例，可在右侧智能挂而处看到 USB 接口。

请将已制作完成的启动 U 盘插入服务器 USB 接口，然后参考下一步继续。

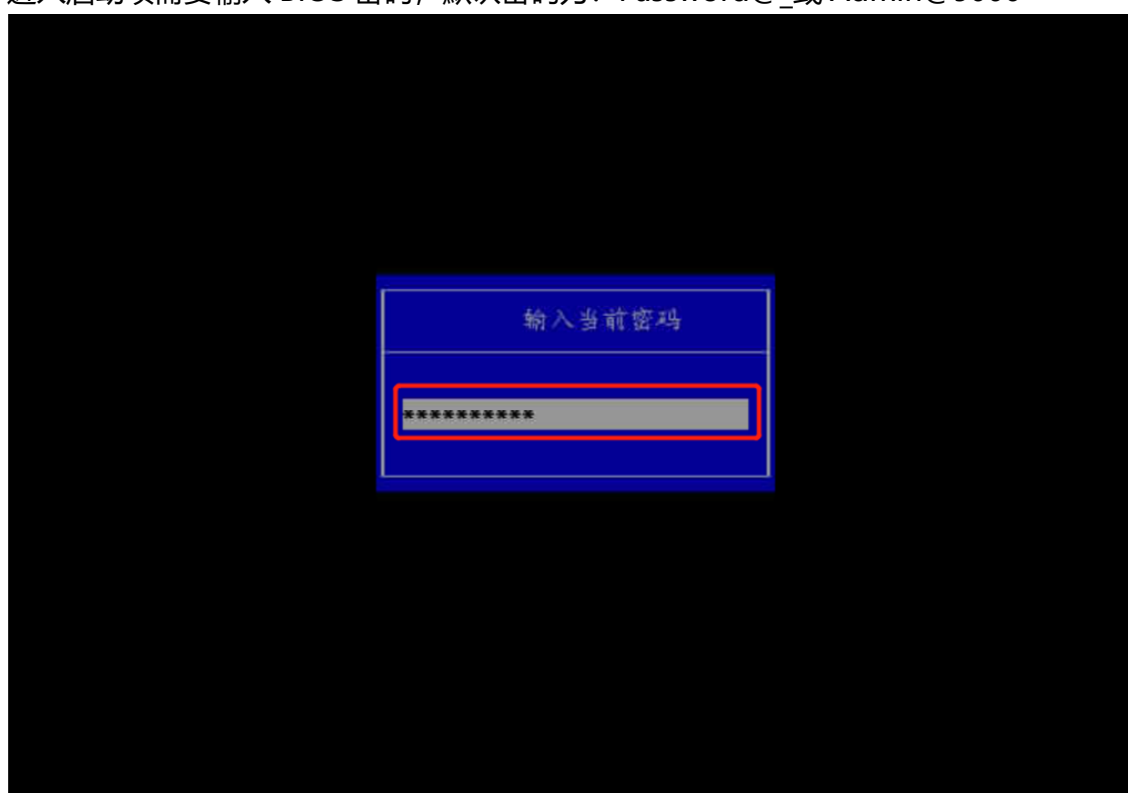


2. 引导系统安装

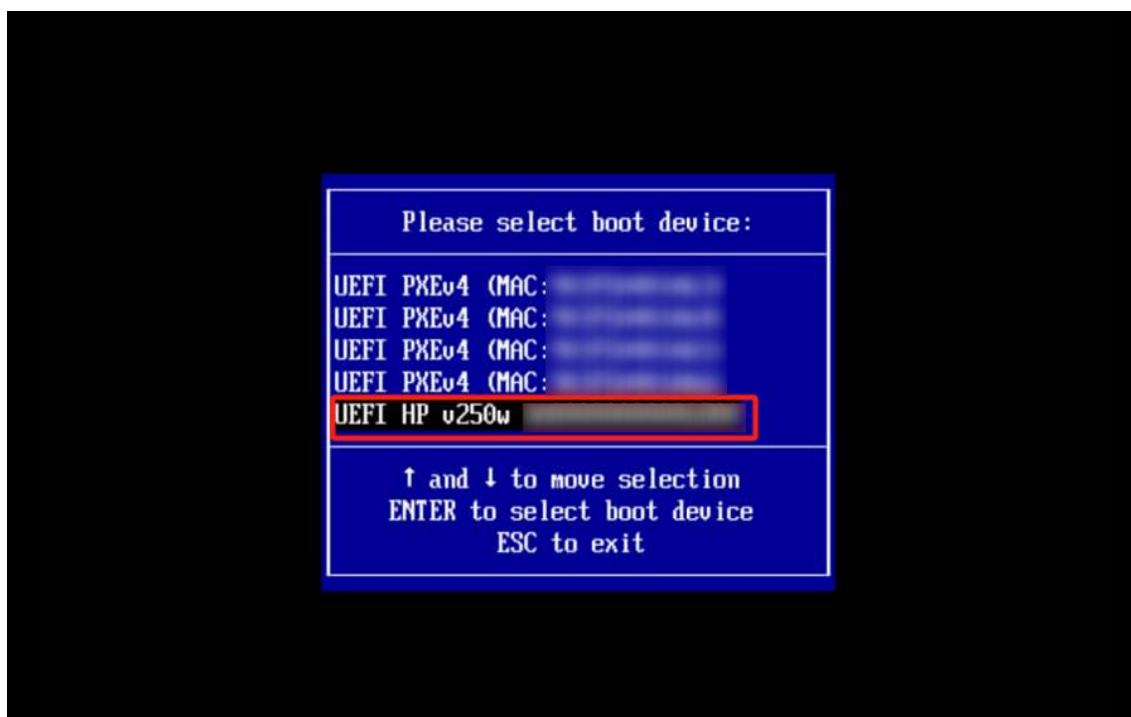
2.1 启动服务器，在开机自检界面按下 **F2**，选择启动项。



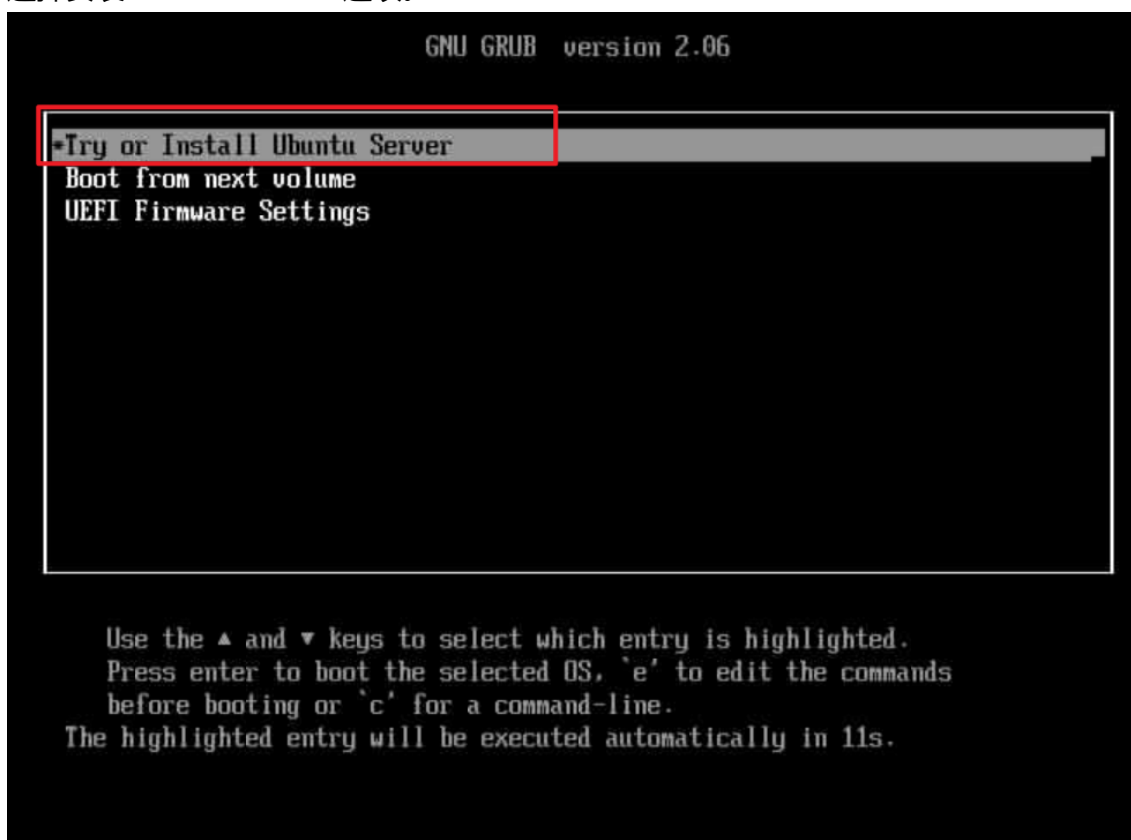
2.2 进入启动项需要输入 BIOS 密码，默认密码为：Password@_或 Admin@9000



2.3 选择 OS 镜像所在的 U 盘。



2.4 选择安装 Ubuntu Server 选项。



2.5 开始引导安装。

```

=====
[ 8.235735] =====
=====
[ 8.235737] UBSAN: array-index-out-of-bounds in /build/linux-44SzGa/linux-5.1
5.0/drivers/scsi/megaraid/megaraid_sas_fp.c:115:31
[ 8.235741] index 1 is out of range for type 'MR_LD_SPAN_MAP [1]'
[ 8.235830] =====
=====
[ 8.235833] =====
=====
[ 8.235835] UBSAN: array-index-out-of-bounds in /build/linux-44SzGa/linux-5.1
5.0/drivers/scsi/megaraid/megaraid_sas_fp.c:125:9
[ 8.235839] index 1 is out of range for type 'MR_LD_SPAN_MAP [1]'
[ 8.235927] =====
=====
[ 8.235930] =====
=====
[ 8.235932] UBSAN: array-index-out-of-bounds in /build/linux-44SzGa/linux-5.1
5.0/drivers/scsi/megaraid/megaraid_sas_fp.c:151:32
[ 8.235936] index 1 is out of range for type 'MR_LD_SPAN_MAP [1]'
[ 8.236023] =====
=====
stdin: Invalid argument
stdin: Invalid argument
stdin: Invalid argument
-

```

2.6 选择语言。

```

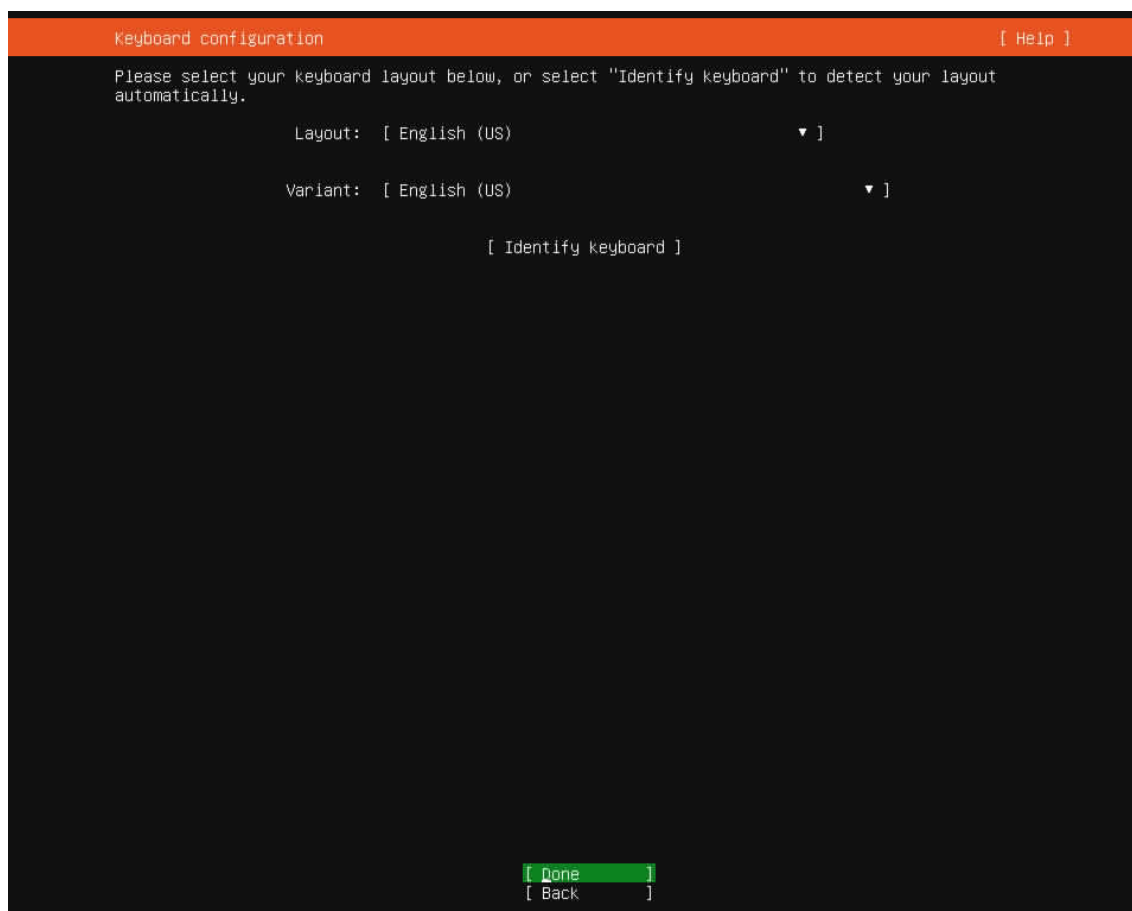
Willkommen! Bienvenue! Welcome! Добро пожаловать! Welkom! [ Help ]

Use UP, DOWN and ENTER keys to select your language.

[ Asturianu ]
[ Bahasa Indonesia ]
[ Català ]
[ Deutsch ]
[ English ]
[ English (UK) ]
[ Español ]
[ Français ]
[ Galego ]
[ Hrvatski ]
[ Latviski ]
[ Lietuviškai ]
[ Magyar ]
[ Nederlands ]
[ Norsk bokmål ]
[ Polski ]
[ Português ]
[ Suomi ]
[ Svenska ]
[ Čeština ]
[ Ελληνικά ]
[ Беларуская ]
[ Русский ]
[ Српски ]
[ Українська ]

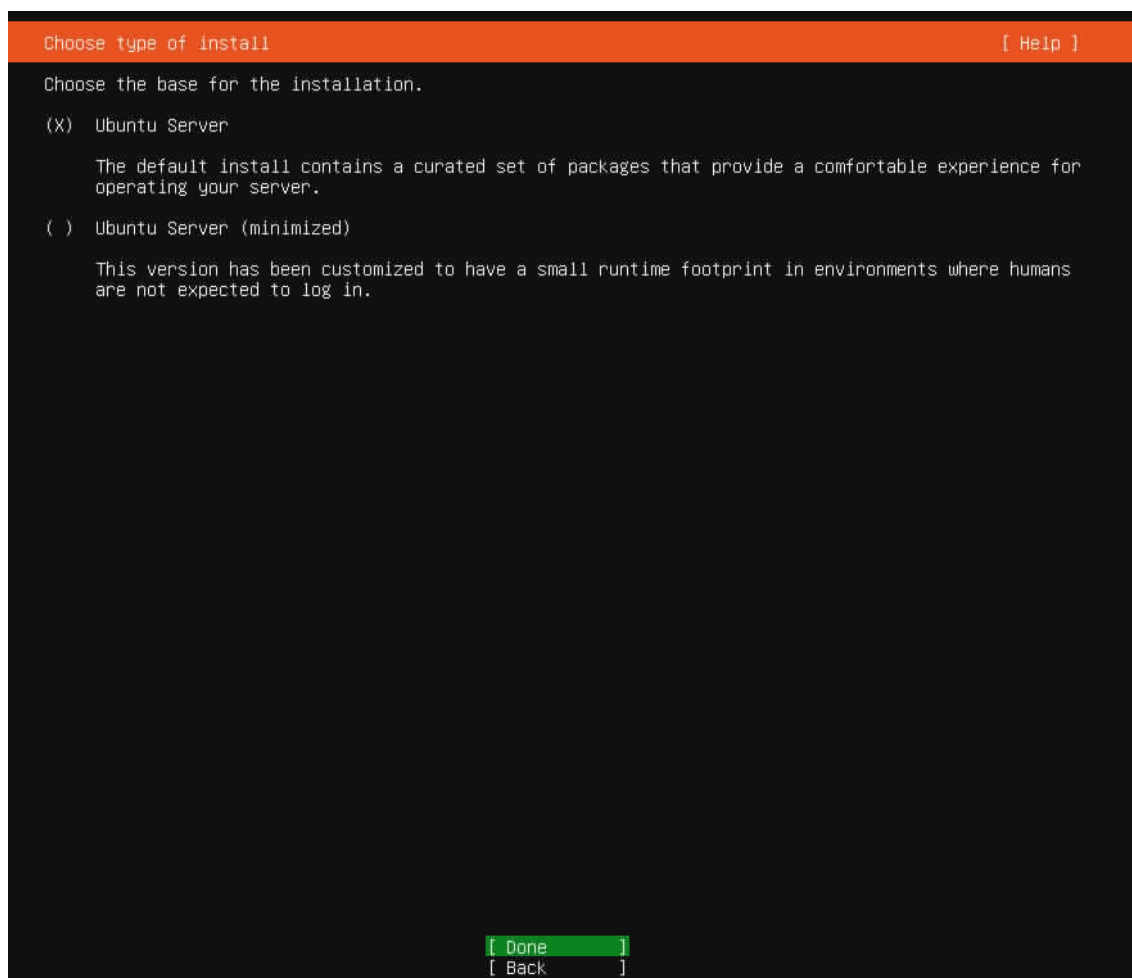
```

选定后回车，选择 **Done**。

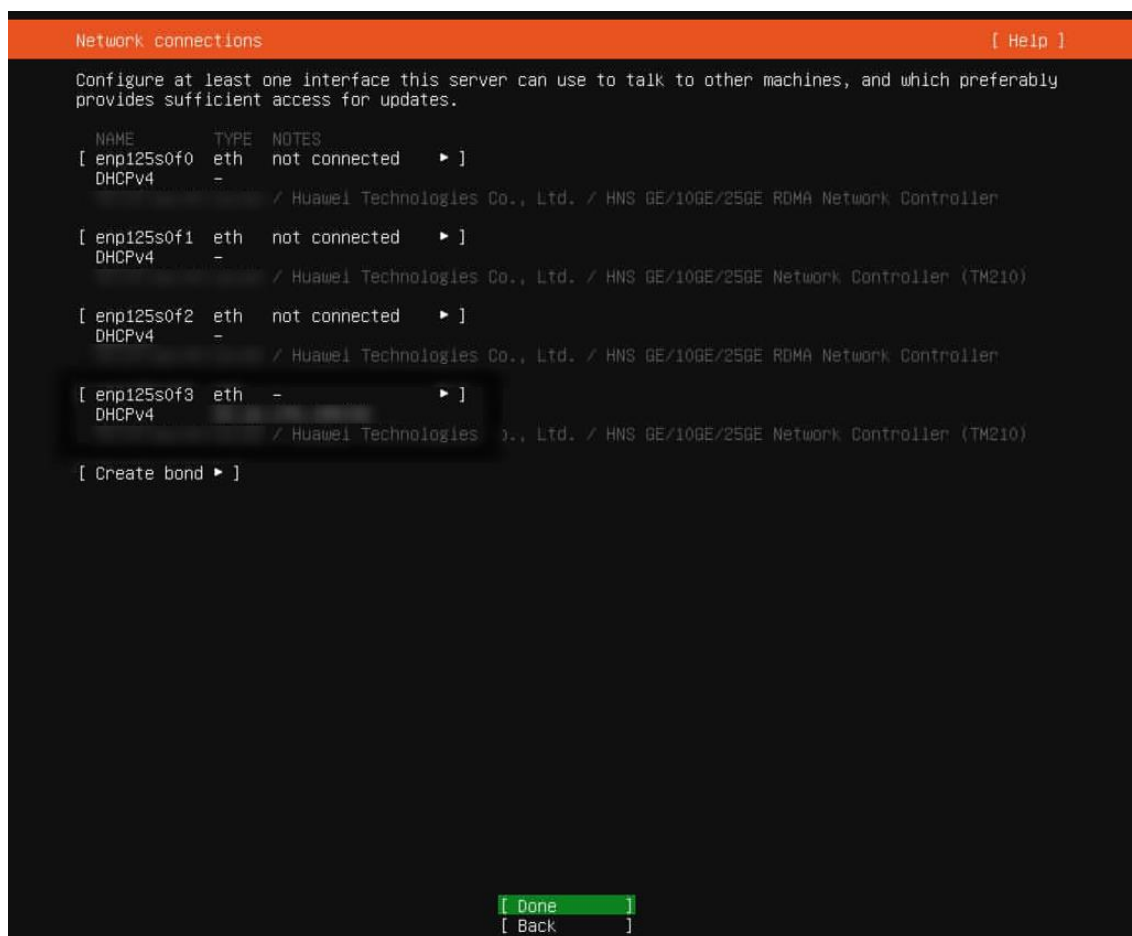


2.7 选择安装模式，根据业务需要自行选择常规模式或最小化模式。

(x) 代表选中，选中后 **Done** 回车即可。



2.8 进入网络配置界面确认当前网络配置，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**。



2.9 代理服务器，根据业务需求设置即可。此处不设置，选择 **Done** 回车即可。

Configure proxy

[Help]

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

Proxy address:

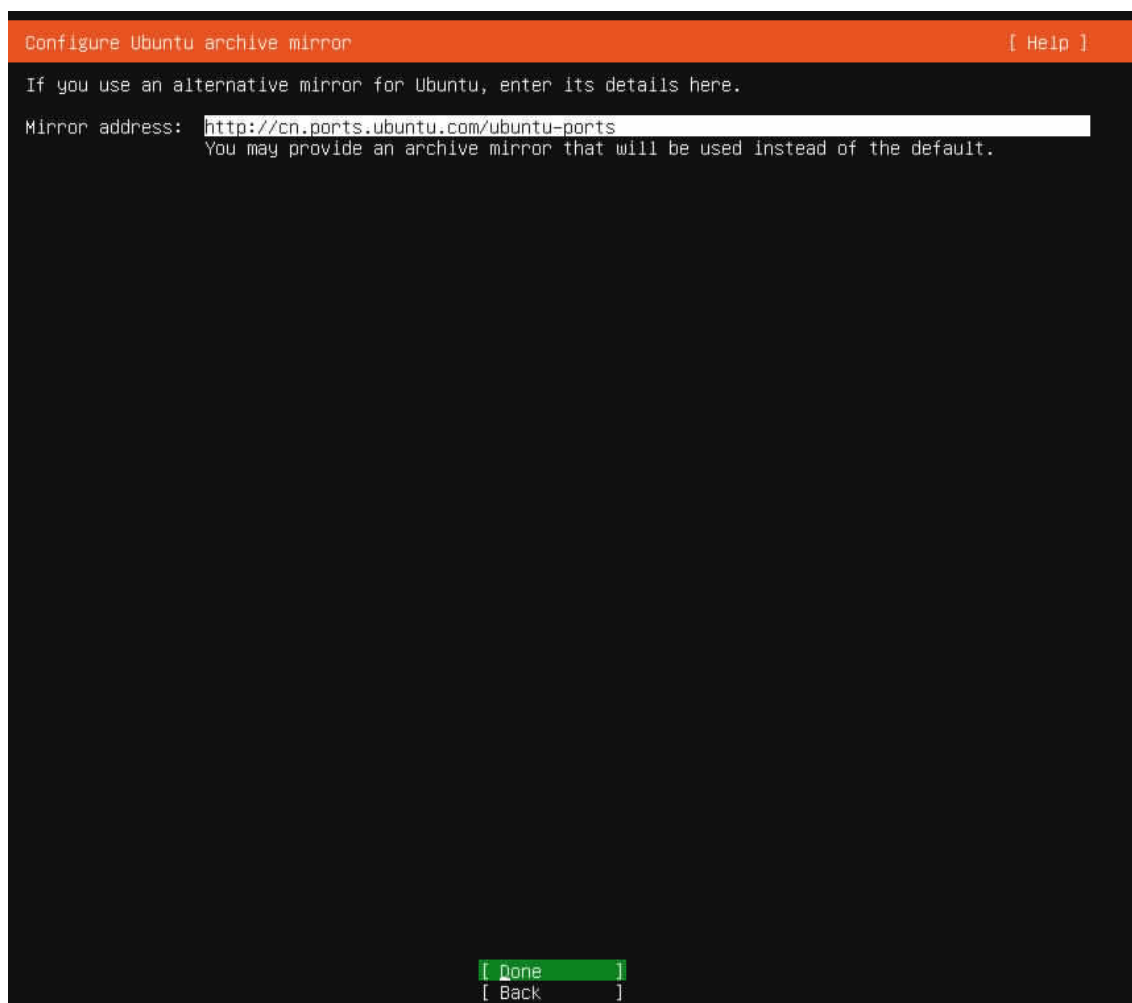
If you need to use a HTTP proxy to access the outside world, enter the proxy information here. Otherwise, leave this blank.

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

[Done]

[Back]

2.10 设置软件源的地址，默认即可。选择 **Done** 回车。

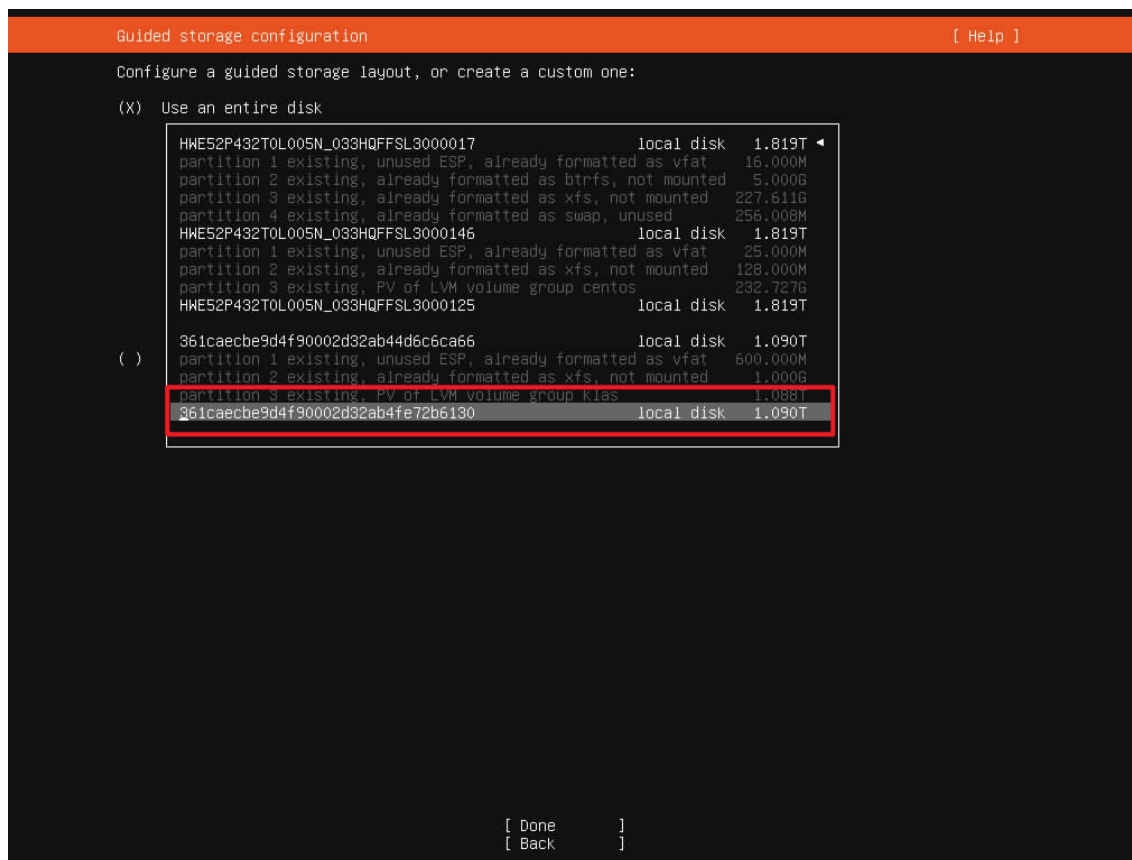


2.11 安装器更新界面，选择 **Continue without updating**。

```
Installer update available [ Help ]
Version 23.10.1 of the installer is now available (22.04.2 is currently running).
You can read the release notes for each version at:
    https://github.com/canonical/subiquity/releases
If you choose to update, the update will be downloaded and the installation will continue from here.

[ Update to the new installer ]
[ Continue without updating ]
[ Back ]
```

2.12 选择安装位置，在首选项回车，会显示分区列表，选择安装此系统的位置，**Done** 回车。



2.13 分区预览 (Storage configuration), 查看当前分区配置, 可根据需求重新设置, 设置完成后, 选择 **Done**。

```
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                   1.633T ▶ ]
free space                             1.535T ▶ ]

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

USED DEVICES

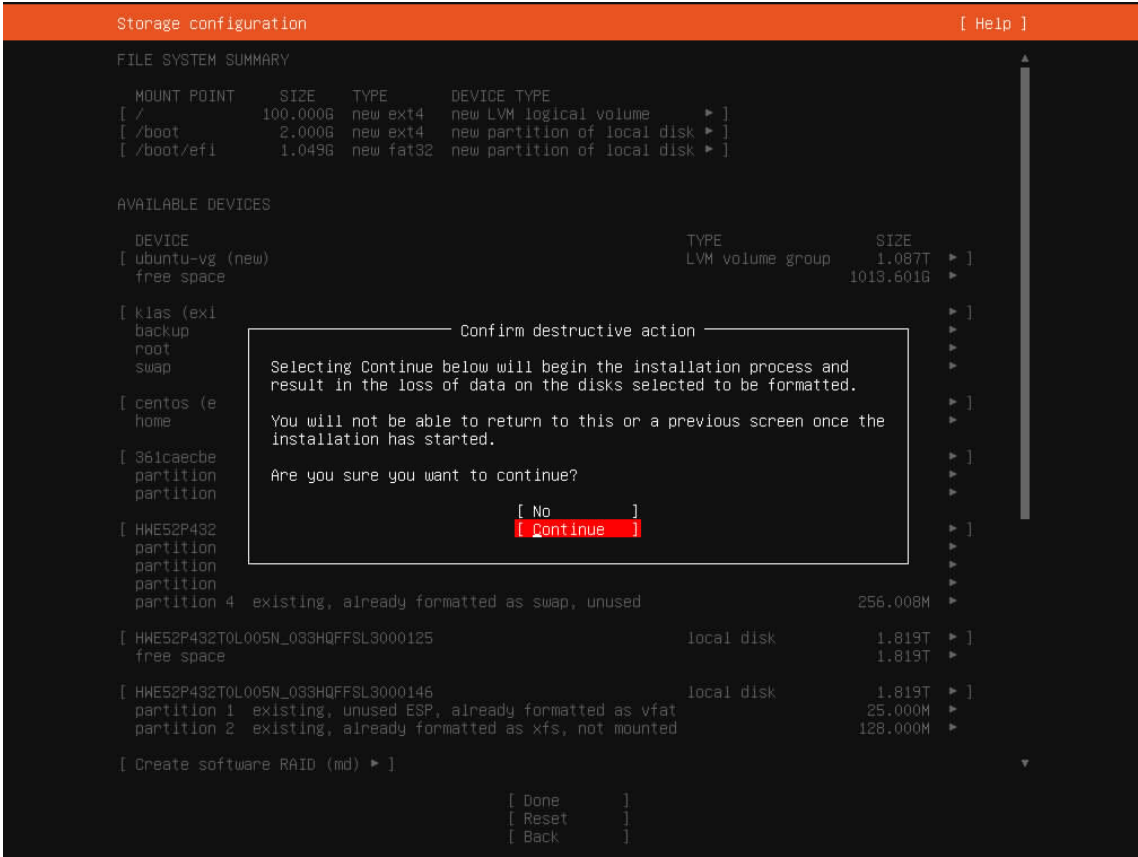
DEVICE                                TYPE                                SIZE
[ ubuntu-vg (new)                     LVM volume group                   1.633T ▶ ]
ubuntu-lv    new, to be formatted as ext4, mounted at / 100.000G ▶ ]

[ 12d1_DVD-ROM_FLOPPY_KVM_2.0_1123456 local disk                             0B ▶ ]

[ 36d47c44d3f4850002d3167995c69b5c8 local disk                             1.636T ▶ ]
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 1.633T ▶ ]

[ Done ]
[ Reset ]
[ Back ]
```

2.14 然后会弹出警告：提示磁盘将会格式化，选择 **Continue**，然后按 Enter 键即可继续。



2.15 设置用户名和密码，设置完成后选择 **Done**。

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:

123

Your server's name:

456

The name it uses when it talks to other computers.

Pick a username:

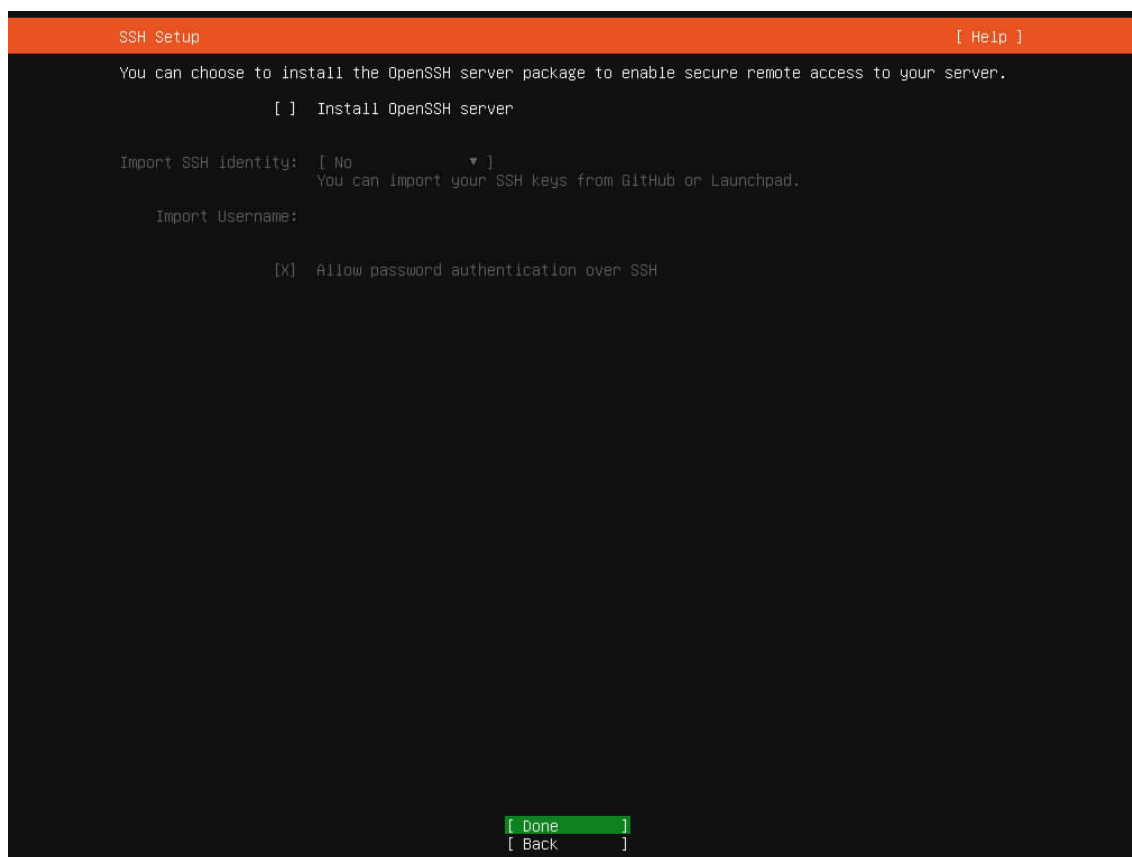
abc123

Choose a password:

Confirm your password:

[Done]

2.16 安装 SSH server (可选), 可以选择安装 open SSH 服务器, 该服务器允许从网络上的任何系统远程访问该服务器。按空格键选择/取消选择, 如果现在不执行此操作, 则还可以在系统安装完成后再安装。此处不安装, 直接选择 **Done**。



2.17 Feature Server Snaps, 其他功能软件列表, 可根据需求选择安装。此处不设置, 直接选择 **Done**。


```

Featured Server Snaps [ Help ]

These are popular snaps in server environments. Select or deselect with SPACE, press ENTER to see
more details of the package, publisher and versions available.

[ ] microk8s canonical ✓ Kubernetes for workstations and appliances ▶
[ ] nextcloud nextcloud ✓ Nextcloud Server - A safe home for all your data ▶
[ ] kata-containers katacontainers ✓ Build lightweight VMs that seamlessly plug into the conta ▶
[ ] docker canonical ✓ Docker container runtime ▶
[ ] rocketchat-server rocketchat ✓ Rocket.Chat server ▶
[ ] mosquito mosquito ✓ Eclipse Mosquitto MQTT broker ▶
[ ] etcd canonical ✓ Resilient key-value store by CoreOS ▶
[ ] sabnzbd safihre SABnzbd ▶
[ ] wormhole snapcrafters get things from one computer to another, safely ▶
[ ] aws-cli aws ✓ Universal Command Line Interface for Amazon Web Services ▶
[ ] google-cloud-sdk google-cloud-sdk ✓ Google Cloud SDK ▶
[ ] slcli softlayer Python based SoftLayer API Tool. ▶
[ ] doctl digitalocean ✓ The official DigitalOcean command line interface ▶
[ ] conjure-up canonical ✓ Package runtime for conjure-up spells ▶
[ ] postgresql10 cmd ✓ PostgreSQL is a powerful, open source object-relational d ▶
[ ] keepalived keepalived-project ✓ High availability VRRP/BFD and load-balancing for Linux ▶
[ ] juju canonical ✓ Juju - a model-driven operator lifecycle manager for K8s ▶

[ Done ]
[ Back ]

```

2.18 开始进入安装，等待即可。

```
Installing system [ Help ]

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-sdb
        configuring partition: partition-0
        configuring format: format-1
        configuring partition: partition-1
        configuring format: format-2
        configuring partition: partition-2
        configuring lvm_volgroup: lvm_volgroup-0
        configuring lvm_partition: lvm_partition-0
        configuring format: format-3
        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/tmp9gtfz9dk/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-arm64',
'grub-efi-arm64-signed', 'shim-signed']
        configuring iscsi service
        configuring raid (mdadm) service
        installing kernel \
```

2.19 安装完成，选择 **Reboot Now** 重启系统即可。

```
Installation complete! [ Help ]

----- Finished install! -----
running '/snap/bin/subiquity.subiquity-configure-apt
/snap/subiquity/1966/usr/bin/python3 false'
  curtin command apt-config
  curtin command in-target
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
  installing openssh-server
  restoring apt configuration

[ View full log ]
[ Reboot Now ]
```