

# TencentOS Server 操作系统安装指南

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## 1、介绍

TencentOS Server 是腾讯公司自主研发的定制化服务器操作系统。该系统集成了众多服务器系列的优点，加入自主研发的软件，便于用户操作使用，提供全方位（内核及用户态）的操作系统支持。系统特点：安全、易用、稳定、快速、长久支持。安装镜像提供了服务器常用的各种软件支持，同时可以使用线上软件源安装及更新软件。此说明适用于 Tencent OS Server 2.4 发行版与 3.1 发行版的安装与使用，本文中以 Tencent OS Server 3.1 为例。



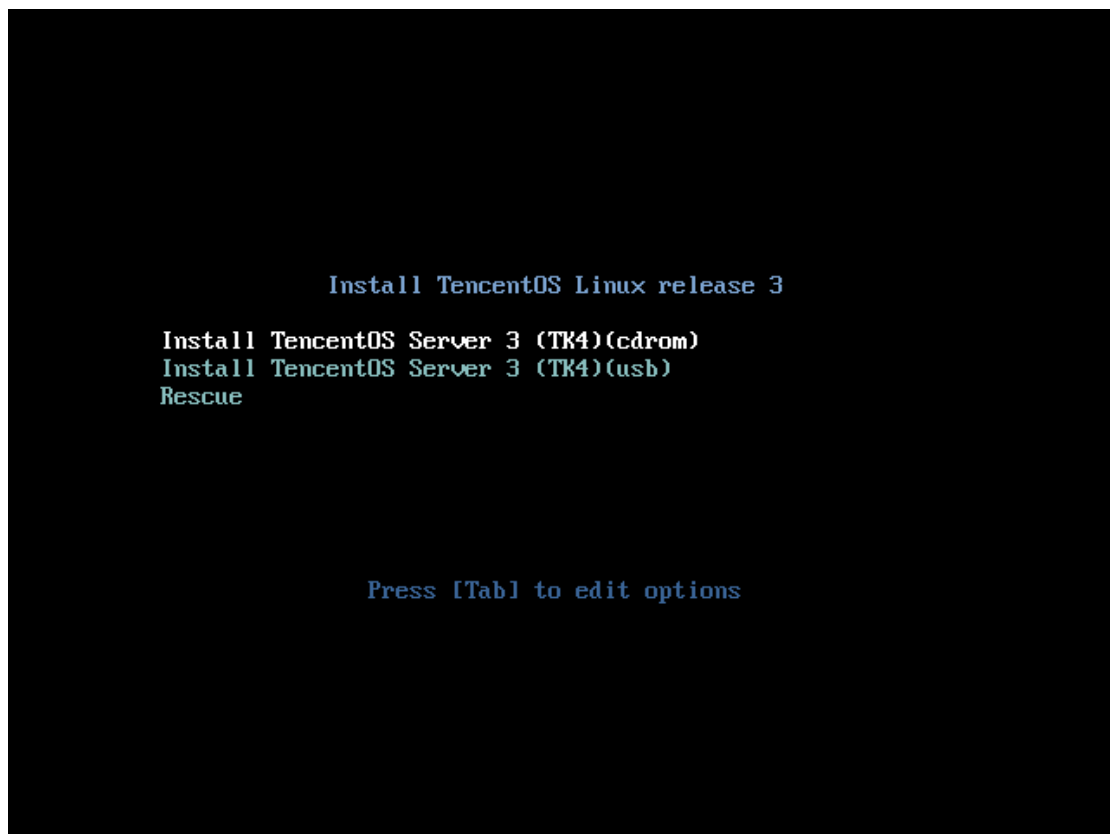
## 2、安装前准备

安装 TencentOS Server 服务器操作系统前，您的服务器需要满足以下要求：

- 服务器接入稳定电源
- 确保服务器至少拥有 50GB 硬盘空间，4GB 内存空间
- 获取安装 DVD 光盘（需要服务器拥有 DVD 光驱）或 USB 安装（需要服务器拥有 USB 接口）
- 安装前请备份您的硬盘数据，以防数据丢失
- 镜像获取地址：[https://mirrors.tencent.com/tencentos/3.1/iso/x86\\_64/](https://mirrors.tencent.com/tencentos/3.1/iso/x86_64/)

## 3、光盘安装说明

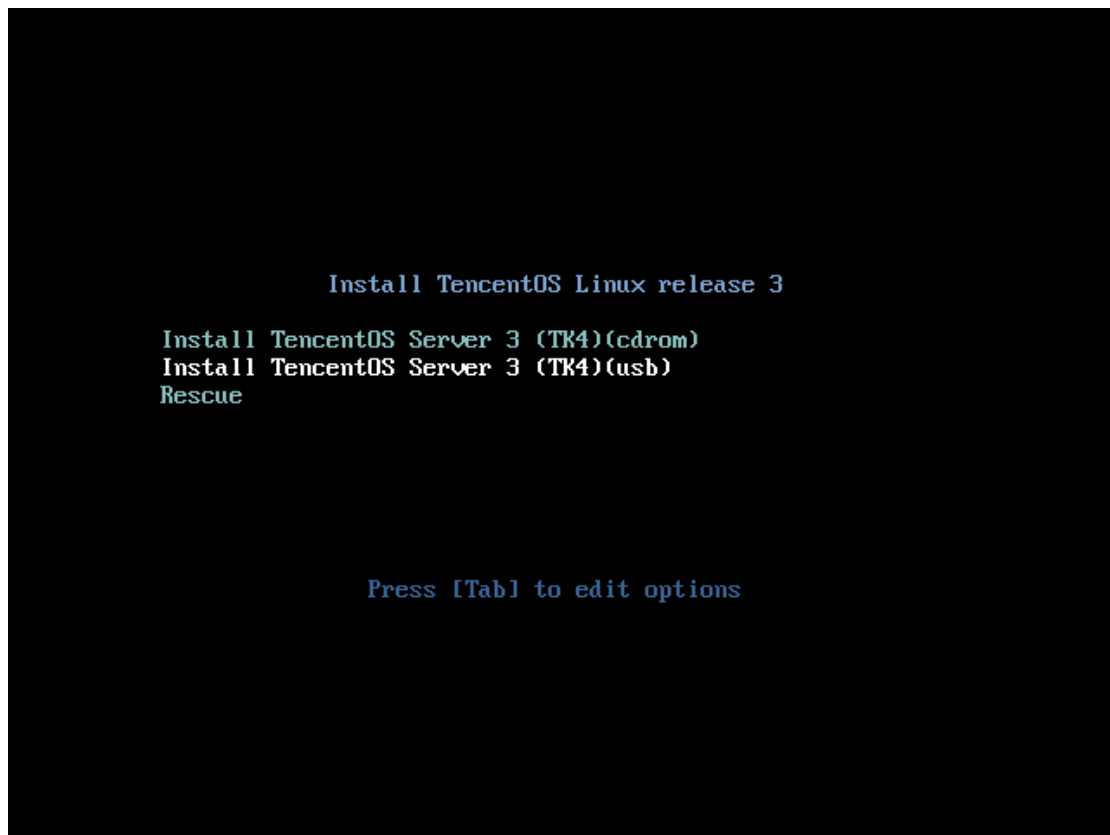
- 插入安装光盘，启动时进入 BIOS 选择从 CDROM 驱动器启动
- 进入系统安装选择目录，选择 cdrom 方式进行安装



## 4、USB 安装说明

- 使用 UltraISO 烧录 iso 镜像到 USB 介质中

- 插入 USB 安装介质，启动时从 BIOS 选择 USB 启动
- 进入安装目录，选择从 usb 安装介质安装操作系统



## 5、调整根分区大小

注：OC 版本不需要考虑调整分区。

TencentOS Server 默认的分区大小。

/分区 20G，SWAP 分区 2G，/usr/local 分区 20G，/data 分区为该硬盘剩余空间大小。

80G 的硬盘安装完成后硬盘分区示例如下：

```

[root@TENCENT64 ~]# lsblk
NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT
sda         8:0    0   80G  0 disk
├─sda1      8:1    0   20G  0 part /
├─sda2      8:2    0    2G  0 part [SWAP]
├─sda3      8:3    0   20G  0 part /usr/local
└─sda4      8:4    0   38G  0 part /data
sdb         8:16   0   80G  0 disk
sr0        11:0    1 1024M  0 rom
[root@TENCENT64 ~]# _

```

修改根分区方法:

- 进入安装目录，输入 tab 键，进入 cmd 命令模式
- 在命令尾部追加 rootsize=40，回车键完成修改，即可调整根分区大小为 40GB

```

                                Install TencentOS Linux release 3

Install TencentOS Server 3 (TK4)(cdrom)
Install TencentOS Server 3 (TK4)(usb)
Rescue

> \mlinux initrd=initrd.img inst.stage2=hd:LABEL=Tlinux\x207\x20x86_64 net.ifn
ames=0 biosdevname=0 osname=tlinux-64bit-v3.1.20210106 installmethod=cdrom qui
et rootsize=40_

```

可以看到系统根分区已经调整成为 40GB。

注：如果希望只有一个分区，可以设置 rootsize=max

```

[root@TENCENT64 ~]# lsblk
NAME MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT
sda   8:0      0   80G  0 disk
├─sda1 8:1      0   40G  0 part /
├─sda2 8:2      0    2G  0 part [SWAP]
├─sda3 8:3      0   20G  0 part /usr/local
└─sda4 8:4      0   18G  0 part /data
sdb   8:16     0   80G  0 disk
sr0   11:0     1 1024M  0 rom
[root@TENCENT64 ~]#

```

## 6、选择安装路径

TencentOS 支持选择安装路径，在服务器存在多个硬盘时，可以选择安装到制定硬盘中。

- 进入安装后，短暂等待，当出现提示时，按任意键即可进入安装选择
- 如果不进行操作，则会在 10s 后自动安装到 sda 盘中
- 按下任意键后，出现如图硬盘选择
- 输入 sda，系统将会安装到指定 sda 盘中
- 选择指定硬盘后，系统将自动分区，安装系统镜像

```

done .....
mounting /dev/pts (unix98 pty) filesystem... done
mounting /sys filesystem... done
trying to remount root filesystem read write... done
mounting /tmp as tmpfs... done
exec of /sbin/dbus-daemon failed.running install...
running /sbin/loader
Starting udev: [ OK ]
Enter installation mode
Linux localhost.localdomain 4.14.105-19-0018 #1 SMP Thu Dec 3 09:59:51 CST 2020
x86_64 x86_64 x86_64 GNU/Linux
Welcome to tlinux 1.2 64bit for initrd.img
Version 1.2 20201215 pxe
Do you want to select the disk to install Tlinux? [Press any key to continue]^[[
B
===== disk information =====
NAME MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT
sdb   8:16     0   80G  0 disk
sr0   11:0     1 947.9M  0 rom
sda   8:0      0   80G  0 disk
=====

Which disk do you want to install Tlinux(for example:sda):

```

系统自动安装图例

```

Stride=0 blocks, Stripe width=0 blocks
2493680 inodes, 9963008 blocks
498150 blocks (5.00%) reserved for the super user
First data block=0
Maximum filesystem blocks=4294967296
305 block groups
32768 blocks per group, 32768 fragments per group
8176 inodes per group
Superblock backups stored on blocks:
    32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632, 2654208,
    4096000, 7962624

Allocating group tables: done
Writing inode tables: done
Creating journal (32768 blocks): done
Writing superblocks and filesystem accounting information: done

Disk format /dev/sda4 done
Label start
Label done
Unsquashfs start
Parallel unsquashfs: Using 1 processor
76776 inodes (76816 blocks) to write

[=====] 1 20500/76816 26%

```

## 7、修改用户密码

注：OC 版本不需要考虑修改 root 密码。

系统安装后需要强制用户修改密码，修改方式见下图。Tencent OS Server 支持密码强度检测。如果三次重复输入错误，则需要重新设置密码。

```

===== set your root password =====
input root password:
confirm your root password:
New password: Retype new password: Password has been already used. Choose another.
passwd: Have exhausted maximum number of retries for service
Changing password for user root.
BAD PASSWORD: Your password cannot be use!
===== set your root password =====
input root password:
confirm your root password:
Warning: not matched!
confirm your root password:
Warning: not matched!
confirm your root password:
Error: password retry over 3 times, please try again!
===== set your root password =====
input root password:
confirm your root password:
New password: Retype new password: Changing password for user root.
passwd: all authentication tokens updated successfully.
set root password success
change passwd for root
mkinitrd, waiting

```

## 8、完成安装

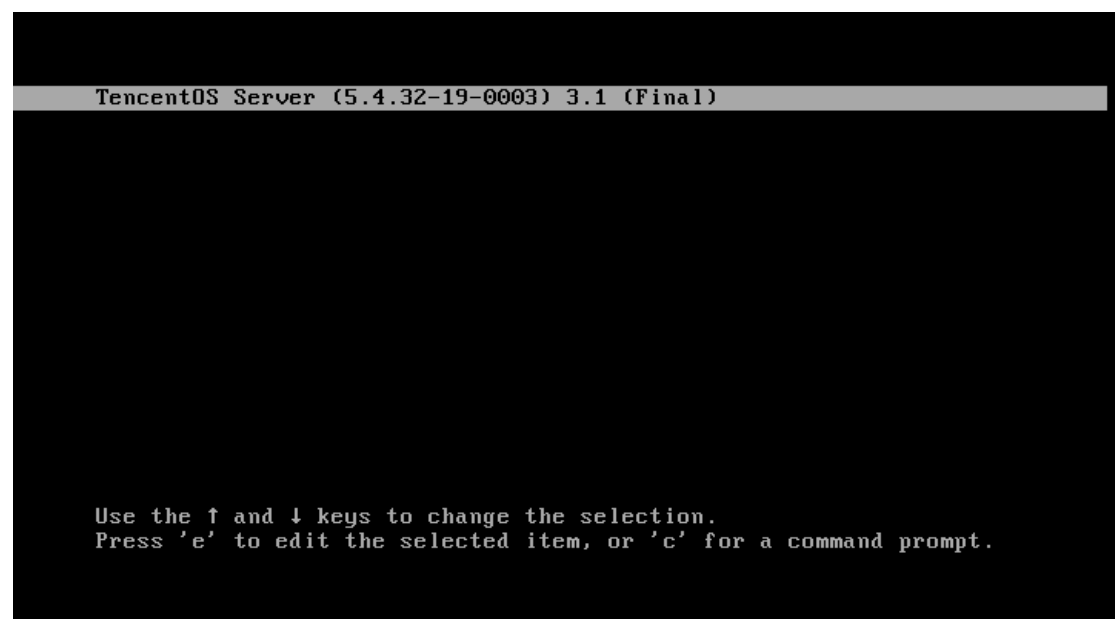
系统完成安装后会出现图中所示字样，只需重启后即可完成安装。

```

eth1mac:
sed: can't read /mnt/harddisk/root//etc/sysconfig/network-scripts/ifcfg-eth1: No
such file or directory
sed: can't read /mnt/harddisk/root//etc/sysconfig/network-scripts/ifcfg-eth0: No
such file or directory
This Server has 1 NIC
configure network done
sshd ListenAddress start
cat: /mnt/harddisk/root//etc/sysconfig/network-scripts/ifcfg-eth1*: No such file
or directory
ethip is null, configure sshd done
Grub installation start
change passwd to Tlinux2019++
New password: Retype new password: Changing password for user root.
passwd: all authentication tokens updated successfully.
mkinitrd, waiting
mkinitrd done!
Generating grub configuration file ...
done
Installing for i386-pc platform.
Installation finished. No error reported.
Grub installation done
Installation finished
Please type 'reboot -f' to reboot from harddisk!
bash-4.1#

```

输入 `reboot -f` 后，正常启动，可以看到系统目录中出现 TencentOS Server。



## 9、如何登陆

完成安装系统后，进入到登陆界面。

登陆用户：root

镜像与密码对应关系：

tlinux\_2.4\_for\_x86\_64\_20xxxxx.iso

Tlinux2019++

tlinux-for-aarch64-efi-v2.4.20xxxxx.iso

Tlinux2019++

tlinux\_2.4\_for\_x86\_64\_2020xxxx\_OC.iso

Tcdn@2007

TencentOS-Server-2.4-for-x86\_64-TK3/TK4-20xxxxxx.iso before 20210303: Tlinux2019++

TencentOS-Server-2.4-for-x86\_64-TK3/TK4-20xxxxxx.iso after20210303: TencentOS2021++

TencentOS-Server-3.1-for-x86\_64-TK4-202xxxxx.iso before 20210303: Tlinux2019++

TencentOS-Server-3.1-for-x86\_64-TK4-202xxxxx.iso after20210303: TencentOS2021++

```
TencentOS Server 3.1 (Final)
Kernel 5.4.32-19-0003 on an x86_64
TENCENT64 login: root
Password:
Welcome to TencentOS Server 3 64bit
Version 3.1 20210106
[root@TENCENT64 ~]#
```

## 附录：

TencentOS public 版本介绍：

- OC：腾讯公司 OC 海外机房专用版本，不具备指定安装硬盘功能以及安装过程修改密码功能。
- TCE：TCE 专供镜像。
- TSTACK：TSTACK 安装镜像，具备指定硬盘安装功能，不具备密码修改功能。
- 第三方公司镜像：OC 版已经全面取代 centos 作为机房安装主要镜像。
- Public：可指定安装硬盘功能，安装过程可修改密码。



## TencentOS Server Installation Guide

### 1. Introduce

TencentOS Server is an independent researched operation system by Tencent. It adds softwares researched by Tencent to users convenient. The System provides secure, convenient, stable, long term support. **This guide suits for TencentOS Server 2.4 and TencentOS Server 3.1 releases.**



### 2. Require

Before installing TencentOS Server, your server hardware must be checked.

- The server connect with a stable power.
- Leave at least 80GB hardware size, 4GB memory.
- Get images CD/DVD, or an images USB drive.
- Please backup hard disks data at first.
- Image url: [https://mirrors.tencent.com/tencentos/3.1/iso/x86\\_64/](https://mirrors.tencent.com/tencentos/3.1/iso/x86_64/)

### 3. CD/DVD

- Insert CD/DVD, choose CDROM method from BIOS.
- At installation list page, choose the first category with **cdrom**.

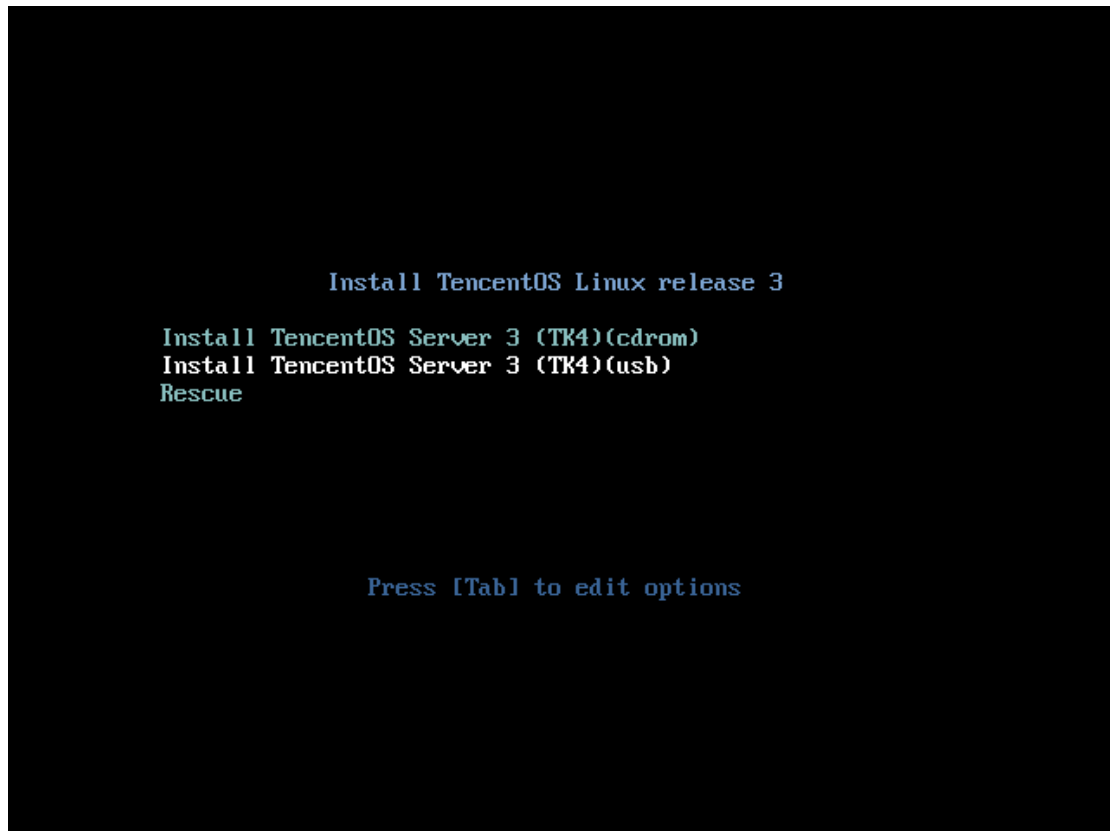
Install TencentOS Linux release 3

Install TencentOS Server 3 (TK4)(cdrom)  
Install TencentOS Server 3 (TK4)(usb)  
Rescue

Press [Tab] to edit options

#### 4. USB drive

- Use UltraISO software write ISO images into USB Drive
- Insert USB, start server from BIOS USB drive.
- At installation list page, choose the second category with **use**.



## 5. Resize root partition size

TencentOS Server default root partition is 20GB, SWAP partition is 20GB.

If hard disk size is 80GB, the partition will be like this picture.

```
[root@TENCENT64 ~]# lsblk
NAME MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
sda   8:0    0  80G  0 disk
├─sda1 8:1    0  20G  0 part /
├─sda2 8:2    0   2G  0 part [SWAP]
├─sda3 8:3    0  20G  0 part /usr/local
└─sda4 8:4    0  38G  0 part /data
sdb   8:16   0  80G  0 disk
sr0   11:0   1 1024M  0 rom
[root@TENCENT64 ~]# _
```

Resize partition method:

- At installation list page, input TAB key,
- Add **rootsize=40** at the end of commands

```

                                Install TencentOS Linux release 3

Install TencentOS Server 3 (TK4)(cdrom)
Install TencentOS Server 3 (TK4)(usb)
Rescue

> vmlinuz initrd=initrd.img inst.stage2=hd:LABEL=Tlinux-64bit-v3.1.20210106 net.ifnames=0 biosdevname=0 osname=tlinux-64bit-v3.1.20210106 installmethod=cdrom quiet rootsize=40_

```

After installation process, the root partition size becomes 40GB.

```

[root@TENCENT64 ~]# lsblk
NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT
sda         8:0    0   80G  0 disk
├─sda1      8:1    0   40G  0 part /
├─sda2      8:2    0    2G  0 part [SWAP]
├─sda3      8:3    0   20G  0 part /usr/local
└─sda4      8:4    0   18G  0 part /data
sdb         8:16   0   80G  0 disk
sr0        11:0    1 1024M  0 rom
[root@TENCENT64 ~]#

```

## 6. Choose install directory

TencentOS supports choose install path. If server exists more than one disks, user could install OS into different disks.

- Start installation, wait a few seconds, when tips appears, press any keys to select installation path.
- If users doesn't do any operation, scripts will install OS into **sda** after 10 seconds.
- Press any key, user could start change installation.
- Input **sda/sdb/sdc/sdd**, scripts will install into specify disks.

```
done .....
mounting /dev/pts (unix98 pty) filesystem... done
mounting /sys filesystem... done
trying to remount root filesystem read write... done
mounting /tmp as tmpfs... done
exec of /sbin/dbus-daemon failed.running install...
running /sbin/loader
Starting udev: [ OK ]
Enter installation mode
Linux localhost.localdomain 4.14.105-19-0018 #1 SMP Thu Dec 3 09:59:51 CST 2020
x86_64 x86_64 x86_64 GNU/Linux
Welcome to tlinux 1.2 64bit for initrd.img
Version 1.2 20201215 pxe
Do you want to select the disk to install Tlinux? [Press any key to continue]^[[
B
===== disk information =====
NAME MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
sdb 8:16 0 80G 0 disk
sr0 11:0 1 947.9M 0 rom
sda 8:0 0 80G 0 disk
=====
Which disk do you want to install Tlinux(for example:sda):
```

Auto installation process.

```
Stride=0 blocks, Stripe width=0 blocks
2493680 inodes, 9963008 blocks
498150 blocks (5.00%) reserved for the super user
First data block=0
Maximum filesystem blocks=4294967296
305 block groups
32768 blocks per group, 32768 fragments per group
8176 inodes per group
Superblock backups stored on blocks:
    32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632, 2654208,
    4096000, 7962624

Allocating group tables: done
Writing inode tables: done
Creating journal (32768 blocks): done
Writing superblocks and filesystem accounting information: done

Disk format /dev/sda4 done
Label start
Label done
Unsquashfs start
Parallel unsquashfs: Using 1 processor
76776 inodes (76816 blocks) to write

[=====] 1 20500/76816 26%
```

## 7. Modify root password

TencentOS installation process forces user changing root password. TencentOS support password strength.

```
===== set your root password =====
input root password:
confirm your root password:
New password: Retype new password: Password has been already used. Choose another.
passwd: Have exhausted maximum number of retries for service
Changing password for user root.
BAD PASSWORD: Your password cannot be use!
===== set your root password =====
input root password:
confirm your root password:
Warning: not matched!
confirm your root password:
Warning: not matched!
confirm your root password:
Error: password retry over 3 times, please try again!
===== set your root password =====
input root password:
confirm your root password:
New password: Retype new password: Changing password for user root.
passwd: all authentication tokens updated successfully.
set root password success
change passwd for root
mkinitrd, waiting
```

## 8. Finish installation

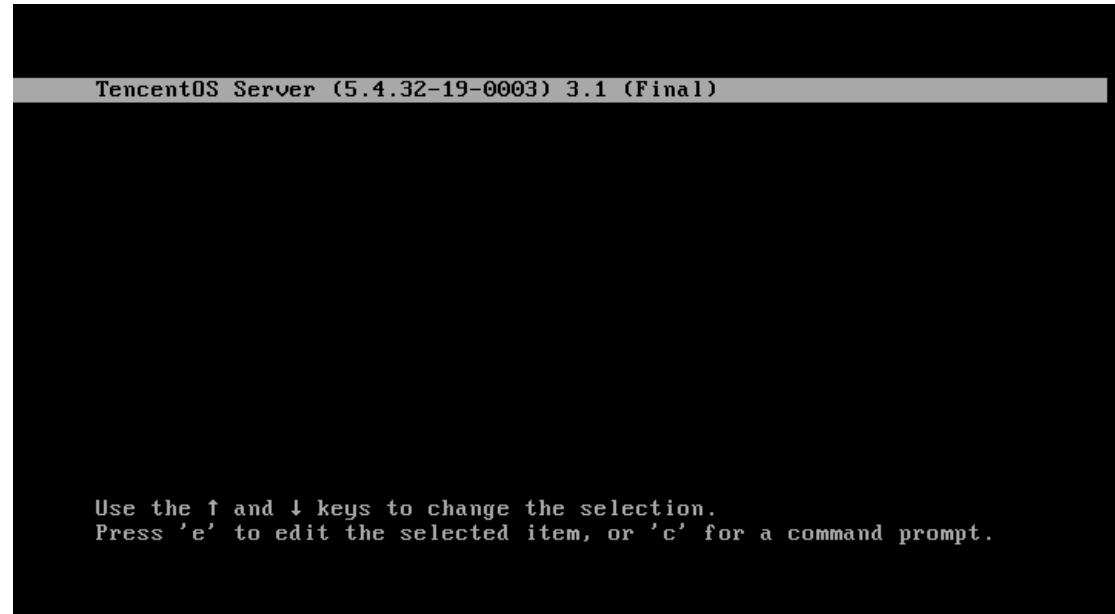
Finish installation, user need input "reboot -f".

```
eth1mac:
sed: can't read /mnt/harddisk/root//etc/sysconfig/network-scripts/ifcfg-eth1: No such file or directory
sed: can't read /mnt/harddisk/root//etc/sysconfig/network-scripts/ifcfg-eth0: No such file or directory
This Server has 1 NIC
configure network done
sshd ListenAddress start
cat: /mnt/harddisk/root//etc/sysconfig/network-scripts/ifcfg-eth1*: No such file or directory
eth1ip is null, configure sshd done
Grub installation start
change passwd to Tlinux2019++
New password: Retype new password: Changing password for user root.
passwd: all authentication tokens updated successfully.
mkinitrd, waiting
mkinitrd done!
Generating grub configuration file ...
done
Installing for i386-pc platform.
Installation finished. No error reported.
Grub installation done
Installation finished
Please type 'reboot -f' to reboot from harddisk!
bash-4.1#
```

## 9. How to login

User: root

Password:



tlinux_2.4_for_x86_64_20xxxxx.iso	Tlinux2019++
tlinux-for-aarch64-efi-v2.4.20xxxxx.iso	Tlinux2019++
tlinux_2.4_for_x86_64_2020xxxx_OC.iso	Tcdn@2007
TencentOS-Server-2.4-for-x86_64-TK3/TK4-20xxxxx.iso	before 20210303:Tlinux2019++
TencentOS-Server-2.4-for-x86_64-TK3/TK4-20xxxxx.iso	after 20210303:TencentOS2021++
TencentOS-Server-3.1-for-x86_64-TK4-202xxxxx.iso	before 20210303:Tlinux2019++
TencentOS-Server-3.1-for-x86_64-TK4-202xxxxx.iso	after 20210303: TencentOS2021++

