TaiShan 服务器

## Ubuntu18.04 安装指南

文档版本01发布日期2019-06-30





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## 概述

本文档详细介绍了 TaiShan 系列服务器的 Ubuntu 18.04.操作系统安装过程、应用场景以 及注意事项。

## 读者对象

本文档主要适用于以下工程师:

- 技术支持工程师
- 维护工程师

## 符号约定

在本文中可能出现下列标志,它们所代表的含义如下。

符号	说明
▲危险	用于警示紧急的危险情形,若不避免,将会导致人员死亡或严重 的人身伤害。
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## 修改记录

文档版本	发布日期	修改说明
01	2019-06-30	第一次正式发布。

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# 1 安装前准备

- 1.1 硬件环境准备
- 1.2 组网规划
- 1.3 磁盘分区规划
- 1.4 (可选) RAID 配置

## 1.1 硬件环境准备

服务器上电,网络连接就绪。

## 1.2 组网规划

当前 Ubuntu 18.04 支持光盘引导安装。

## 1.3 磁盘分区规划

根据实际应用需求,对磁盘分区做规划,包括采用何种 RAID 级别,各个分区大小及 类型等。

#### 注意

需保证系统根分区的空间不小于 150GB。

## 1.4(可选) RAID 配置

如果是LSI SAS3108 RAID 卡,必须先做配置,否则可能识别不到硬盘,LSI SAS3008 或 Avago SAS3508 RAID 卡可选配置。具体操作参见《华为服务器 RAID 控制卡 用户指南》。



**步骤**1 将服务器上电,当出现如图 2-1 界面时,按"Delete"或"F4",进入 BIOS Setup 输入密码界面。

BIOS 的默认密码为"Admin@9000",第一次登录后,建议立即设置管理员的密码。

图2-1 BIOS 启动界面

Version : 0.68 Processor Type : HiSilicon(R) CPU Kunpeng 920 @ 2.6GHz Total Memory : 262144 MB BMC IP : 8.2.30.52 CPU ID : 481FD010

Press Del go to Setup Utility (F4 on Remote Keyboard) Press F12 go to PXE Press F2 go to Boot Option 9 seconds left, Press F4 or DEL to enter Setup, F2 for boot options 步骤 2 进入 BIOS 后,在"Advanced"界面中,设置"ACPI SPCR TABLE"为"Disable"。

#### 图2-2 ACPI SPCR TABLE 页面

BIOS Setup Utility Main Advanced Boot Security Exit	-
▶ Memory Configuration	Help Message
<ul> <li>IPMI iBMC Configuration</li> <li>PXE Configuration</li> <li>Misc Configuration</li> <li>PCI Express Configuration</li></ul>	Enable/Disable ACPI
ACPI SPCR TABLE <disable> </disable>	SPCR TABLE Spread
F1 Help 14 Select Item -/+ Change Value	F9 Setup Defaults
Esc Exit ↔ Select Menu Enter Select≽Sub-Menu	F10 Save & Exit

步骤3 虚拟光驱挂载系统 ISO 镜像。

在服务器 Remote Control 命令窗口工具栏中,单击
 弹出虚拟光驱对话框,如图 2-3 所示。

#### 图2-3 虚拟光驱对话框

Ø	🕂 🛦 🖥	i 🛛 😰 💆 🖸	)日間	◎清晰度 ─── 低		num 🖿 caps 🔳 scroll 🔳 🥐
		<ul> <li>○ 光驱</li> <li>● 積像文件</li> <li>○ 本地文件夹</li> </ul>	:	<mark>浏览 3</mark> 浏览	<b>连接</b> 弾出	

- 选中"镜像文件",单击"浏览"。
   弹出"打开"对话框。
- 3. 选择 OS 的 ISO 镜像文件,单击"打开"。
- 在虚拟光驱对话框中,单击"连接"。
   当"连接"显示为"断开"后,表示虚拟光驱已连接到服务器。

- **步骤 4** 在 iBMC Web 管理界面,将"配置 > 系统启动选项"中的"引导介质"设置为"光 驱"。
- 步骤5 重启服务器。
  - 在工具栏中,单击,选择重启。
     弹出确认对话框。
  - 单击"是"。
     重启服务器,进入操作系统引导界面。

图2-4 操作系统引导界面

GNU GRUB version 2.02	
•Install Ubuntu Server DEM install (for manufacturers) Install MAAS Region Controller Install MAAS Rack Controller Check disc for defects Rescue a hroken system	
Use the ▲ and ▼ keys to select which entry is highlighted. Press enter to boot the selected OS, 'e' to edit the commands before booting or 'c' for a command-line. ESC to return previous menu.	

步骤 6 在操作系统引导界面,选择"Install Ubuntu Server",按"Enter"。

步骤7 进入语言设置界面,选择语言后按"Enter"。

图2-5 语言设置界面



- 步骤 8 进入地理位置配置界面, 依次选择"Other > Asia > China", 按"Enter"。
  - [11] Select your location The selected location will be used to set your time zone and also for example to help select the system locale. Normally this should be the country where you live. This is a shortlist of locations based on the language you selected. Choose "other" if your location is not listed. Country, territory or area: Antigua and Barbuda Australia Botswana Canada Hong Kong India Ireland New Zealand Nigeria Philippines Singapore South Africa United Kingdom United States Zambia Zimbabwe (Go Back) moves: <Space> selects: <Enter> activates buttons (ab)

图2-6 地理位置配置界面

步骤9 进入地理位置语言配置界面,选择"United Ststes - en\_US.UTF-8",按"Enter"。



ountry to base defaul	t locale settings on:	
	Antigua and Barbuda Australia Botswana Canada Hong Kong India Ireland New Zealand Nigeria Philippines Singapore South Africa United Kingdom United Kingdom Zambia Zimbabwe	- en_AG - en_AU.UTF-8 - en_BW.UTF-8 - en_CA.UTF-8 - en_HK.UTF-8 - en_IE.UTF-8 - en_NG - en_NG - en_SG.UTF-8 - en_SG.UTF-8 - en_CA.UTF-8 - en_CA.UTF-8 - en_ZM.UTF-8 - en_ZM.UTF-8 - en_ZM.UTF-8
<go back=""></go>		

步骤 10 进入键盘配置界面,选择"English(US)",按"Enter"。

图2-8 键盘配置界面1



图2-9 键盘配置界面 2



步骤 11 进入网络配置界面,选择暂不配置网络,待进入 OS 后再进行配置。

1. 选择"enahisic2i0",按"Enter"。

图2-10 网络配置界面 1

our system has mul nterface during th	(11) Configure the network tiple network interfaces. Choose the one to use as the primary network e installation. If possible, the first connected network interface
ound has been sele	cted.
rimary network into	enface:
	enahisic210: Ethernet Onboard enahisic211: Ethernet Onboard enahisic212: Ethernet Onboard
	enahisic2i3: Ethernet Onboard
<go back=""></go>	

2. 选择"Continue",按"Enter"。

#### 图2-11 网络配置界面 2



3. 选择"do not configure the network at this time",按"Enter"。

图2-12 网络配置界面 3



步骤 12 进入 Hostname 配置界面,设置 Hostname 后选择"Continue",按"Enter"。

#### 图2-13 Hostname 配置界面

Please enter the hostname for this system. The hostname is a single word that identifies your system to the network. If you know what your hostname should be, consult your network administrator. If you are up your own home network, you can make something up here.	
The hostname is a single word that identifies your system to the network. If you know what your hostname should be, consult your network administrator. If you are up your own home network, you can make something up here.	
Hostname:	don't setting
<go back=""> <conti< td=""><td>nue&gt;</td></conti<></go>	nue>

步骤13 进入用户配置界面,依次输入用户名密码。

图2-14 用户配置界面 1

user account will be	[11] Set up users a created for you to use in	d passwords	nt for
lease enter the real r efault origin for emai he user's real name. \	name of this user. This in ils sent by this user as ພ Your full name is a reason	ormation will be used a ll as any program which ble choice.	for instance as n displays or use
ull name for the new u	user:		
<go back=""></go>			<continue></continue>

图2-15 用户配置界面 2

elect a username fo sername should star of numbers and more	r the new account. Your t with a lower-case let lower-case letters.	first name is a reasona ter, which can be follow	ble choice. The ed by any combination
lsername for your ac	count:		
<go back=""></go>			<continue></continue>

图2-16 用户配置界面 3

vals. e new user:			
e new user:			
an			
			<continue></continue>
	ar	ar	ar

图2-17 用户配置界面 4

Please enter the :	[11] Set up us same user password ag	ers and passwords (ain to verify you	have typed it correctl
Re-enter password	to verify:		
F 1 Show Password	in Clear		
<go back=""></go>			<continue></continue>

步骤 14 进入确认界面,选择"Yes",按"Enter"。

ou may configure y emain private even	our home directory for encryption, such that if your computer is stolen.	any files stored there
he system will sea utomatically unmou	nlessly mount your encrypted home directory a nt when you log out of all active sessions.	each time you login and
ncrypt your home d	irectory?	
<go back=""></go>		(Ves) (No>

图2-18 确认配置界面

步骤 15 进入分区界面,选择"Manual"手动分区,按"Enter"。

图2-19 分区界面

	[1] Partition disks
The insta schemes) still hav	ller can guide you through partitioning a disk (using different standard or, if you prefer, you can do it manually. With guided partitioning you will e a chance later to review and customise the results.
If you ch should be	oose guided partitioning for an entire disk, you will next be asked which disk used.
Partition	ing method:
	Guided - resize SCSI2 (0,0,0), partition #3 (sda) and use freed space
	Guided - reuse partition, SUSI2 (0,0,0), partition #3 (Soa) Guided - use entire disk
	Guided - use entire partition, SCSI2 (0,0,0), partition #3 (sda)
	Guided - use entire disk and set up LVM
	Guided – use entire disk and set up encrypted LVM Manual
(00.0	
KRO F	ack>

步骤16 进入手动分区界面,先删除已有分区。

1. 选择已有分区,按"Enter"。

#### 图2-20 删除已有分区界面 1

		1 100 1	artition disks r
nis is an overv artition to mod artitions, or a	iew of your ify its sett device to i	currently cor ings (file sy nitialize its	ifigured partitions and mount points. Select a jstem, mount point, etc.), a free space to create s partition table.
	Guided pa	rtitioning	
	Configure	software RAI	ID Volume Manager
	Configure	encrypted vo	olumes
	Configure	iSCSI volume	15
	SCSI2 (0)	0,0) (sda) -	1.0 TB SEAGATE ST91000640SS
	100	210.7 MB	FREE SPACE
	#2	4.3 68	XTS
	#4	53.7 GB	xfs
	#5	940.9 GB	xfs
		728.6 KB	FREE SPACE
	Undo chan	ges to partit	tions
	Finish pa	rtitioning ar	nd write changes to disk
<go back=""></go>			

2. 选择"Yes",按"Enter"。

#### 图2-21 删除已有分区界面 2



步骤17 进入手动分区界面,开始创建分区。

1. 选择"FREE SPACE",按"Enter"。

#### 图2-22 手动创建分区界面 1

	[[1] Partition disks
This is an overv partition to mod partitions, or a	lew of your currently configured partitions and mount points. Select a ify its settings (file system, mount point, etc.), a free space to create device to initialize its partition table.
	Guided partitioning
	Configure the Logical Volume Manager
	Configure encrypted volumes Configure ISCSI volumes
	SCSI2 (0,0,0) (sda) - 1.0 TB SEAGATE ST91000640SS 1.0 TB FREE SPACE
	Undo changes to partitions Finish partitioning and write changes to disk
<go back=""></go>	

- 2. 选择"Create a new partition",按"Enter"。
  - 至少创建"/boot/efi"(分区大小 200MB)和"/" 2个分区,根据规划创建其 他分区。
  - 必须第一个创建"/boot/efi"分区,如果要创建"swap"分区,必须最后一个 创建"swap"分区。
  - 除 "/boot/efi" 和 "swap" 分区外,其他分区的文件系统类型选择 ext4 (默认 即为 ext4)。

### 图2-23 手动创建分区界面 2

Fill Partition dicks	
How to use this free space: Preate a new partition Automatically partition the free space Show Cylinder/Head/Sector information <go back=""></go>	

3. 设置分区大小。

#### 图2-24 手动创建分区界面 3

he maximum size for th	[11] Partition	n disks	
int: "max" can be used	as a shortcut to specif	y the maximum size, or en	ter a percentage
ew partition size:	n percentage of the max.	11411 312C.	
0.0			
<go back=""></go>			<continue></continue>

4. 开始创建分区。

#### 图2-25 手动创建分区界面 4

		1] Partition d	isks		
Please choose whe and of the availa	her you want the ne le space.	w partition to	be created at t	he beginning or at	the
Location for the	ew partition:				
		Beginning End			
<go back=""></go>					

5. 设置分区属性。

#### 图2-26 手动创建分区界面 5

ou are editing p n this partition	artition #1 of SCSI2	(0,0,0) (sda). No existing file system was detected
artition setting	s:	
	Name : Use las :	Ext4 journaling file system
	Mount point: Mount options: Label: Reserved blocks: Typical usage: Bootable flag:	/ defaults none 5% standard off
	Delete the partit Done setting up 1	tion the partition
<go back=""></go>		

#### 图2-27 手动创建分区界面 6

How to use this partition:	
Ext4 journaling file syste Ext3 journaling file syste Ext2 file system btrfs journaling file syste XFS journaling file system FAT16 file system FAT32 file system swap area Reserved BIOS boot area EFI System Rantition physical volume for encry physical volume for RAID physical volume for LVM do not use the partition	em em tem m
<go back=""></go>	

6. 完成分区创建。

#### 图2-28 手动创建分区界面7

You are editing part in this partition.	ition #1 of SCSI2 (0,0,0) (sda). No existing file system was detected
Partition settings:	
	Name: Use as: EFI System Partition
	Bootable flag: on
	Delete the partition Done setting up the partition
<go back=""></go>	

步骤 18 所有分区创建完成后,选择"Finish paritioning and write changes to disk",按 "Enter"。

#### 图2-29 手动创建分区界面 8

his is an over artition to mo artitions, or	view of your currently configured partitions and mount points. Select a ddify its settings (file system, mount point, etc.), a free space to create a device to initialize its partition table.
	Guided partitioning Configure software RAID Configure the Logical Volume Manager Configure encrypted volumes Configure iSCSI volumes
	SCSI2 (0,0,0) (sda) - 1.0 TB SEAGATE ST91000640SS 1.0 MB FREE SPACE #1 199.2 MB B f ESP #2 900.0 GB f ext4 / #3 40.0 GB f swap swap 60.0 GB FREE SPACE
	Undo changes to partitions Finish partitioning and write changes to disk
<go back=""></go>	

步骤 19 进入手动分区确认界面,选择"Yes",按"Enter"。

图2-30 手动分区确认界面



步骤 20 进入更新设置界面,选择"No automatic updates",按"Enter"。

图2-31 更新设置界面



**步骤 21** 进入软件设置界面,根据需求选择需要安装的软件包,后选择"Continue",按 "Enter"。 图2-32 软件设置界面

	[1] Software selection
At the moment, only the c needs, you can choose to software.	ore of the system is installed. To tune the system to your install one or more of the following predefined collections of
Choose software to instal	1:
	[] DNS server [] LAMP server [] Mail server [] PostgreSQL database [] Print server [] Samba file server [] OpenSSH server
	<continue></continue>

步骤 22 安装完毕重启,选择"Continue",按"Enter"重启。

#### 图2-33 重启确认界面



- **步骤 23** 在 iBMC Web 管理界面,将"配置 > 系统启动选项"中的"引导介质"设置为"硬盘"。
- 步骤 24 重启服务器后选择进入 Ubuntu。

图2-34 Ubuntu grub 界面

ONO ONON VERSION 2.02 DECA2 SOUTHANDASSIT		
-Ubuntu		
Advanced options for Ubuntu System setup		
Use the ▲ and ▼ keys to select which entry is highlighted. Press enter to boot the selected OS, `e' to edit the commands before booting or `c' for a command-line. The highlighted entry will be executed automatically in 30s.		

步骤 25 进入 OS 登录界面。

图2-35 OS 登陆界面



----结束