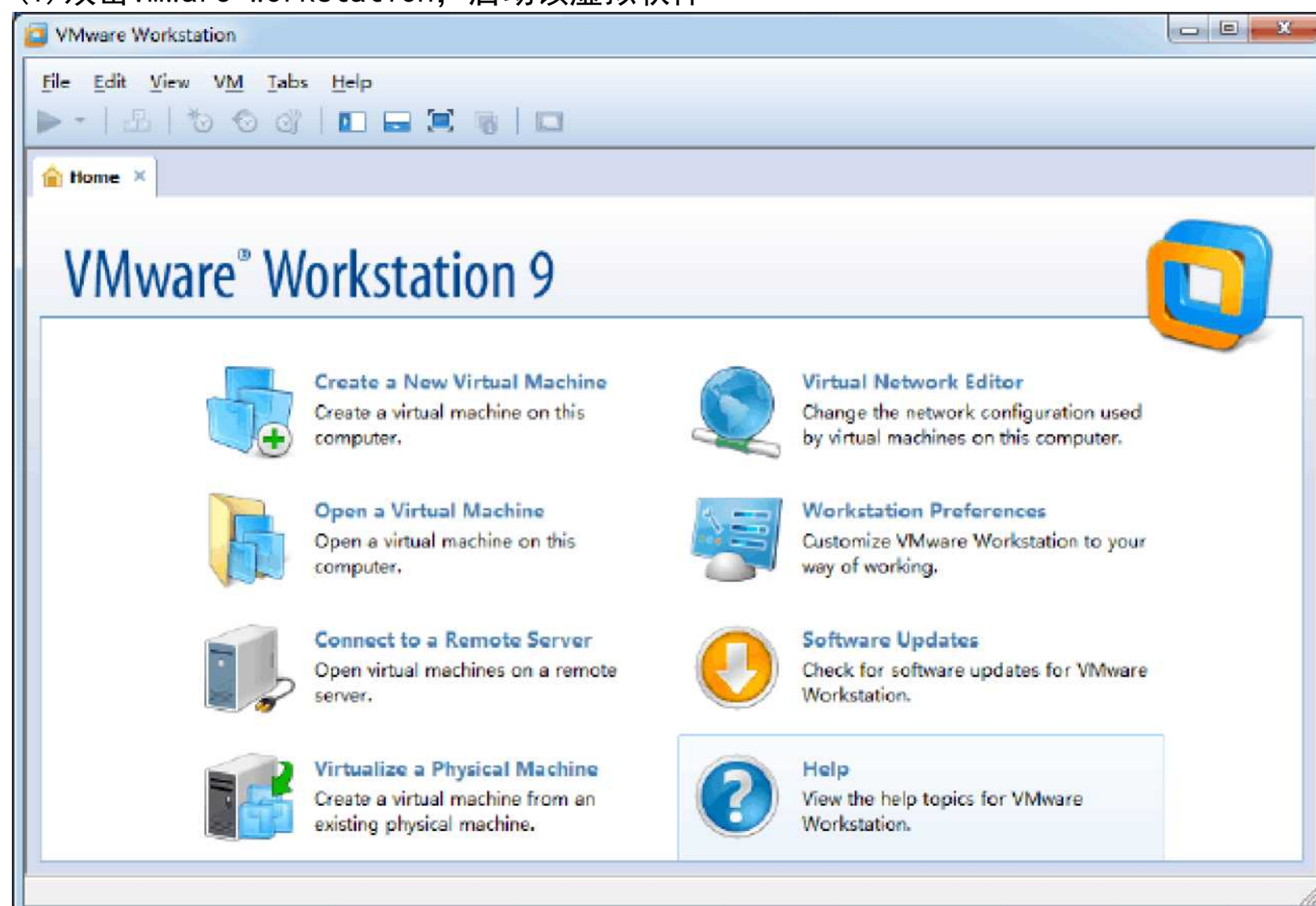


第一章虚拟化部分

实验一 VMware 下虚拟机的安装

步骤：

(1) 双击VMware workstation，启动该虚拟软件



(2) 选择典型安装



Help

Welcome to the New Virtual Machine Wizard

What type of configuration do you want?

» Typical (recommended)

Create a Workstation 3.0 virtual machine in a few easy steps.

Custom (advanced)

Create a virtual machine with advanced options, such as a SCSI controller type, virtual disk type, and compatibility with older VMware products.

Next >

Cancel

(3) 选择虚拟机镜像文件

<juest Operating System In^tallatkMi

A virtual madiine is like a physical **computer** ; it needs 日n operating system. Haw will you install tie guest operating system?

Install from;

Installer disc:

3 口也住啊驱动器旧)

a Installer disc image file (iso):

C:\UsersyLii^ownloads^ibuntu-14. 04. I-SErver-amclS- ■ Browse. . .

W Ubuntu 64-bit Server 14.04.1 detected.

Thig operating system will use Easy Install. [GWha也「讷?\)](#)

L v'll install tie operating Eystem later.

The virtual machine 州ll be created with a blank h日「d disk.

Easy Install In fornix tian

This is used to install Ubuntu 64-bit.

Personalia **L i n u x**

Full **name** : Hadoop

User name: gtu

Password: *....«

Confirm;



< Back Newt > Cancel

(5) 虚拟机命名

Hamethe Virtual Machine

What name would you like to use for this virtual machine?

Virtual machine name:

UbuntLi-6<-bit

Location:

D:Server -for-£tu

B rowse...

The default location can b& dnsnged at Edit > Pref&rerices.

Specify Disk-G^pacity

How large do you want this disk to be?

The virtual machine's hard disk is stored as one or more files on the host computer's physical disk. Files start small and become larger as you add applications, files, and data to your virtual machine.

Maximum disk size (GEO: 2D.0 :

Recommended size for Ubuntu 64-bit: 20 GB

Q Store virtual disk as a single file

Split virtual disk, into multiple files

Splitting the disk makes it easier to move the virtual machine to another computer but may reduce performance with very large disks.



Ready to Create Virtual Machine

Click Finish to create the virtual machine and start installing Ubuntu 64-bit and then VMware Tools.

The virtual machine will be created with the following settings:

Name:	Ubuntu-64-bit
Location:	D:\server-for-stu
Version:	Workstation 9.0
Operating System:	Ubuntu 64-bit
Hard Disk:	20 GB
	thin

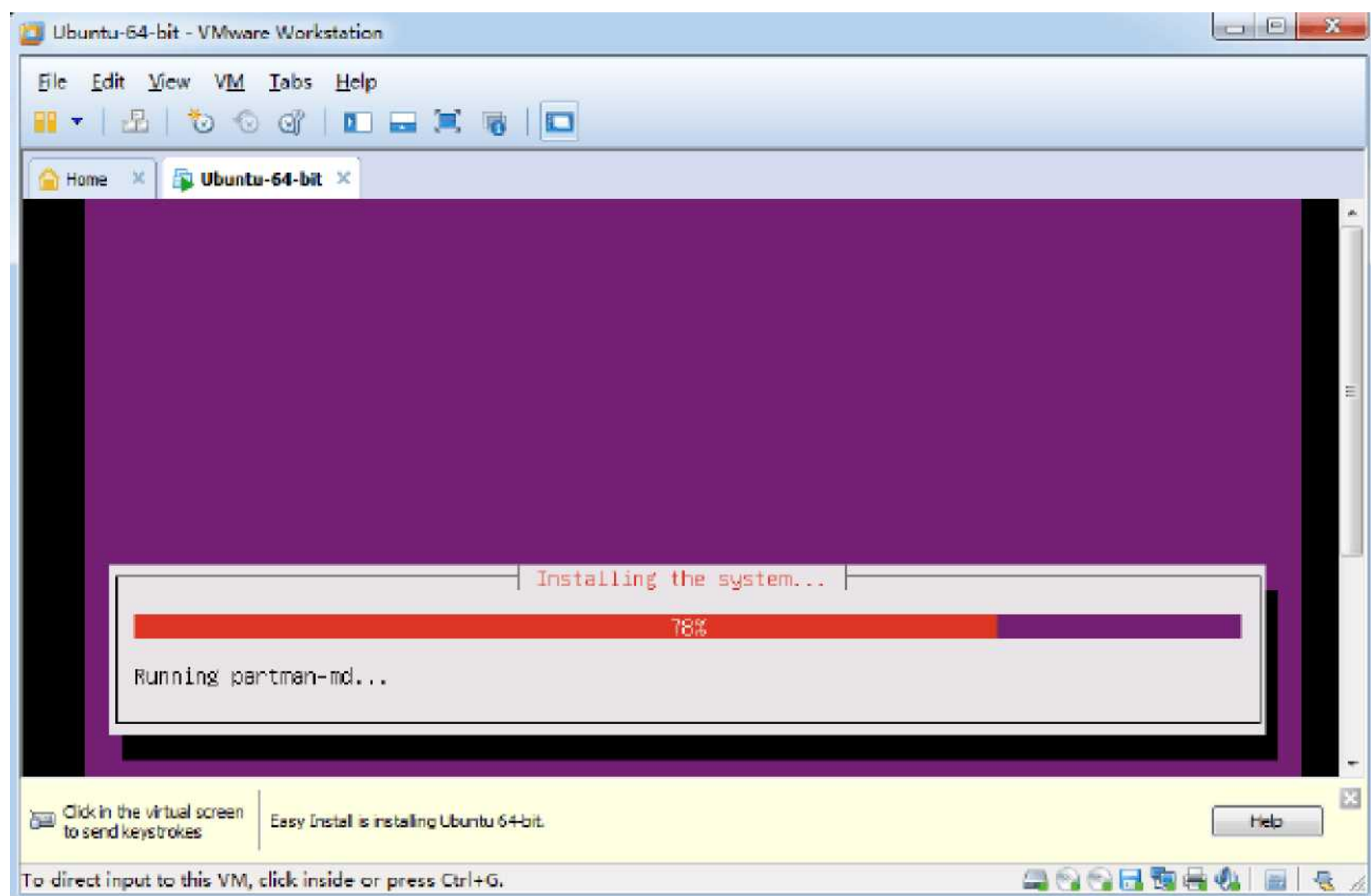
...

Customize Hardware...

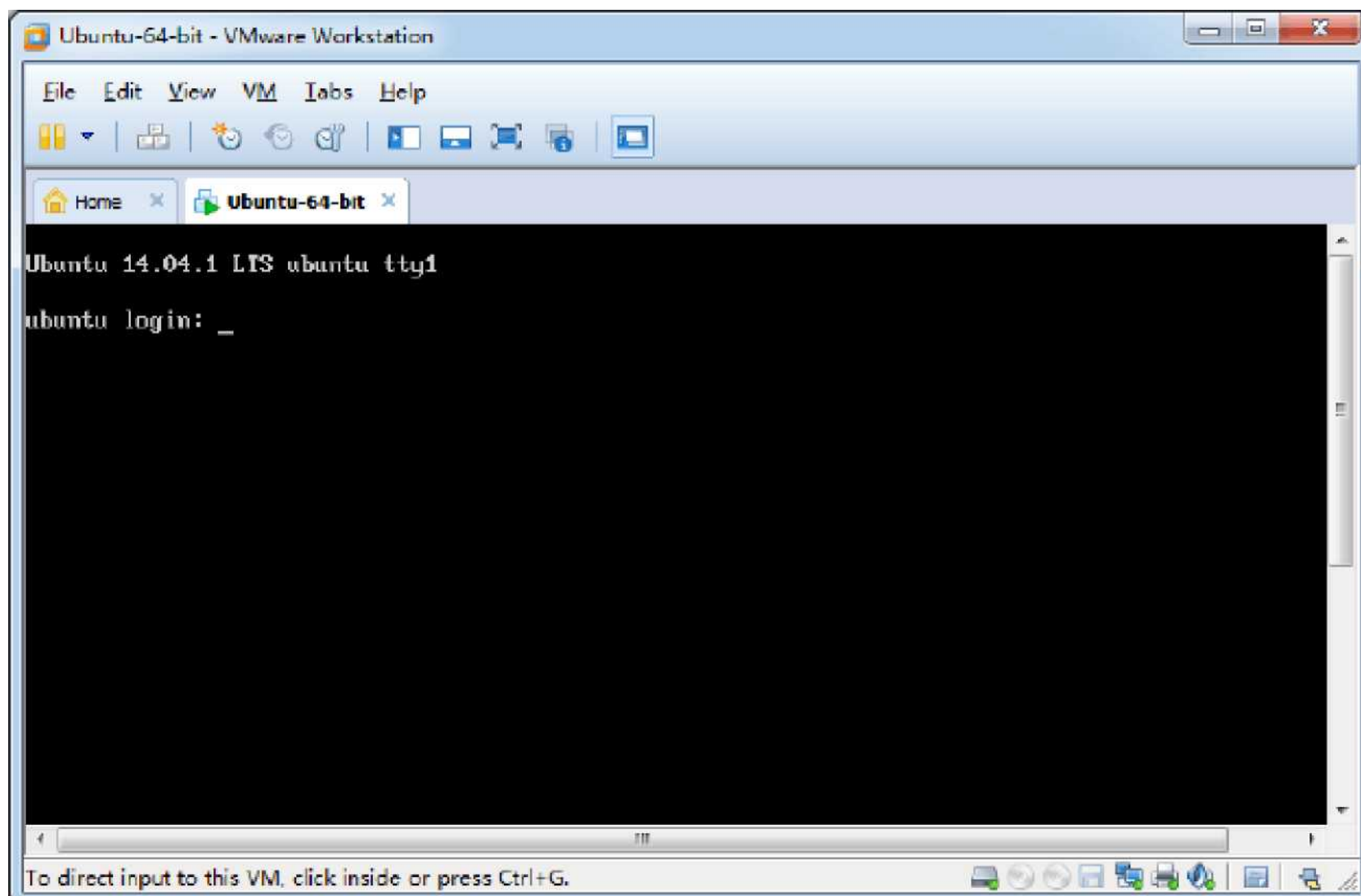
☒ Power on this virtual machine after creation

< Back Finish Cancel

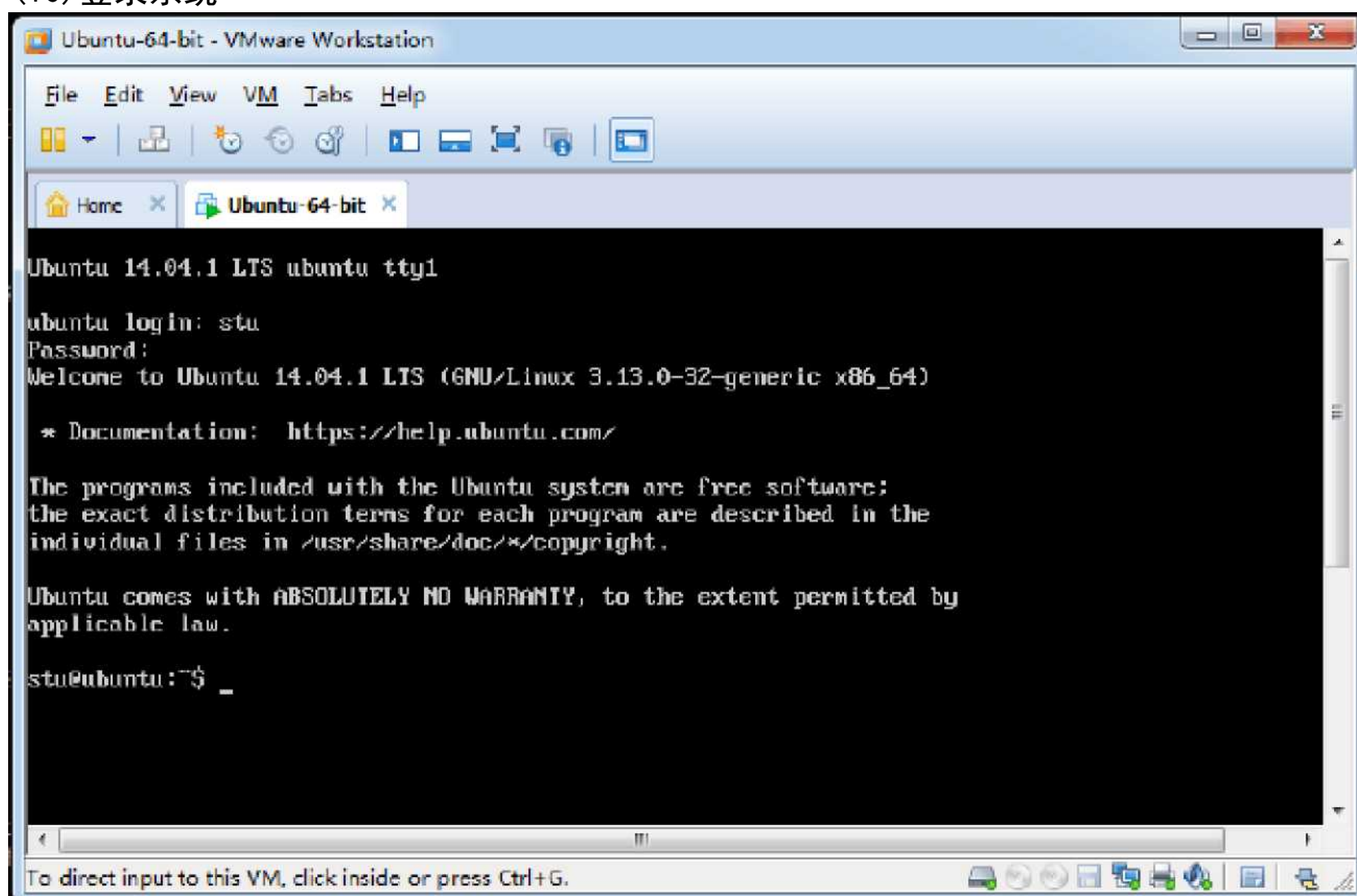
(8) 开始安装虚拟机



(9) 进入登机界面



(10) 登录系统



(11) 查看虚拟机IP

jl Uburrtui-&i4-tNt - VMware Workstation

file Edit Virw VM labi Jddp

明—琳|EJ白反厕1巨

Honw X Ubuntu-

□buiirrtu 14.04.1 LIS ubuntu ttyl

Libuhitu login: stu
Password:
Utelcooc to IJtanth H.0l-1 LTS CGNU/Limiix 3.13.0-3Z^jeTieric xB6_M)

« Iftocumientat ion: https://he Ip = ubuntu _cwii/

TJIB programs included with the Ubuntu system are fme softftjarej
the exact distribution terns for each pragrain are descrIbed in the indim>idudl
files in /usr/sharezdoc/^/OTijyrijiht_

UbuLintu ccM&s uith fflSOLUTEL? ND WABRARIty. tc the exteimt permitted by Cippl
lEflible IcLU .

5muM ntu ; ifcimf lg

eth0 Lihk encap: Ethernet HNaddr O&: Oc: Z9: dZ-dl: db

ioet addrzigz.i&a.aa.m :isz.IBB,,oa.255 帛旦血JZSS.ZBS.ZSS,,G iost& addr:
fi±B0: : Zfic: ZS&f :PedZ: dJJb/E.4 S^mpe: Lipk UP BBUfflCftSI NUMHIHG
MULIJCftST mU: 1500 fltetric : 1

RX pmckets -32 Errajrw 油 dropped : 0 cuerruns - frame -0

K packets: 3l erroj^e dmpptjd: .oueiTuras^ raiTler collisions; 6
txqu@uelen: l而.
RX bytesi6713 (6.7 KB) DC "es: 3377 0.3 KB)

lo Link eincap : LDDSL1 Loopback

inert addb'= 127.0.0.1 Mf1Ek-2S5.G.0.6

inetb addr: :: izl28 Scope: Host

UP LOOPHM* 的慚I* MTU:防536 恨订iM1

To direct input to ihi% VM. **dkk**i直id吁 or pre^ Ctrl+G, W

— E日! &暮也I由I岫

(12) 为方便操作，用putty登录

隅 PuTTY Configuration

Category:

0- Session

Logging

白 “ Terminal

; ■■■■

KeTbaand

! ; ■■■■ Bell

Features

Q- Window

; ■■■■

Appearance

\ - Eehauiaur i-

Translation i-

S&J&ction

Colour

白..

Conriection

/ - Data

Options controlling character set translation

Character set translation

Rjemote character set:

UTF-0

(Codepages gupparted by Windows but not listed here, such as CPBGSan many syatema, can be entered manually)

Treat C J K ambiguous 而启ctg ss wide

Caps Lock acts Cyrillic switch

Adjust how PuTTY handles line drawing charactera

Handling of line drawing 如ECU国;

a Use Unicode line drawing code points

Poor man's line drawing (-+, - and D

Fant has X'Windows encoding

Use font in both ANSI and OEM modes

Use font in 0 EM mode only

]Copy and paste line drawing character as lqqqk

About

Op&n

Canc
el

陵
PuTTY Configurston

Category:

- ☐-Session
 - : "-Logging
- ☐-Terminal
 - p- Keybaand
 - ...Bell
 - Features
 - (j)-Window
 - ; ■■■■
- Appearance
 - ; ■■■■
- Behaviour
 - ; ■■■■
- Translation
 - ; ■■■■
- Selection
 - [...Cfilours
- Q-Conriection
 - └... Data
 - :—Prmy
 - └” Telnet
 - Rio gin 由..斯
 - '... Serial

Abou
t

Open
Canc
el

Basic options for your PuTTY session

Specify ihe destination you want to connect to

Host Name (or IP address)	Port
192.1tB.S0.131	22

Connection type:
☐ Raw
☐ Telnet
☐ Rlogin
☒ SSH
☐ Serial

Load, save or delete a stored session

Saved Sessions

server

Default Settings

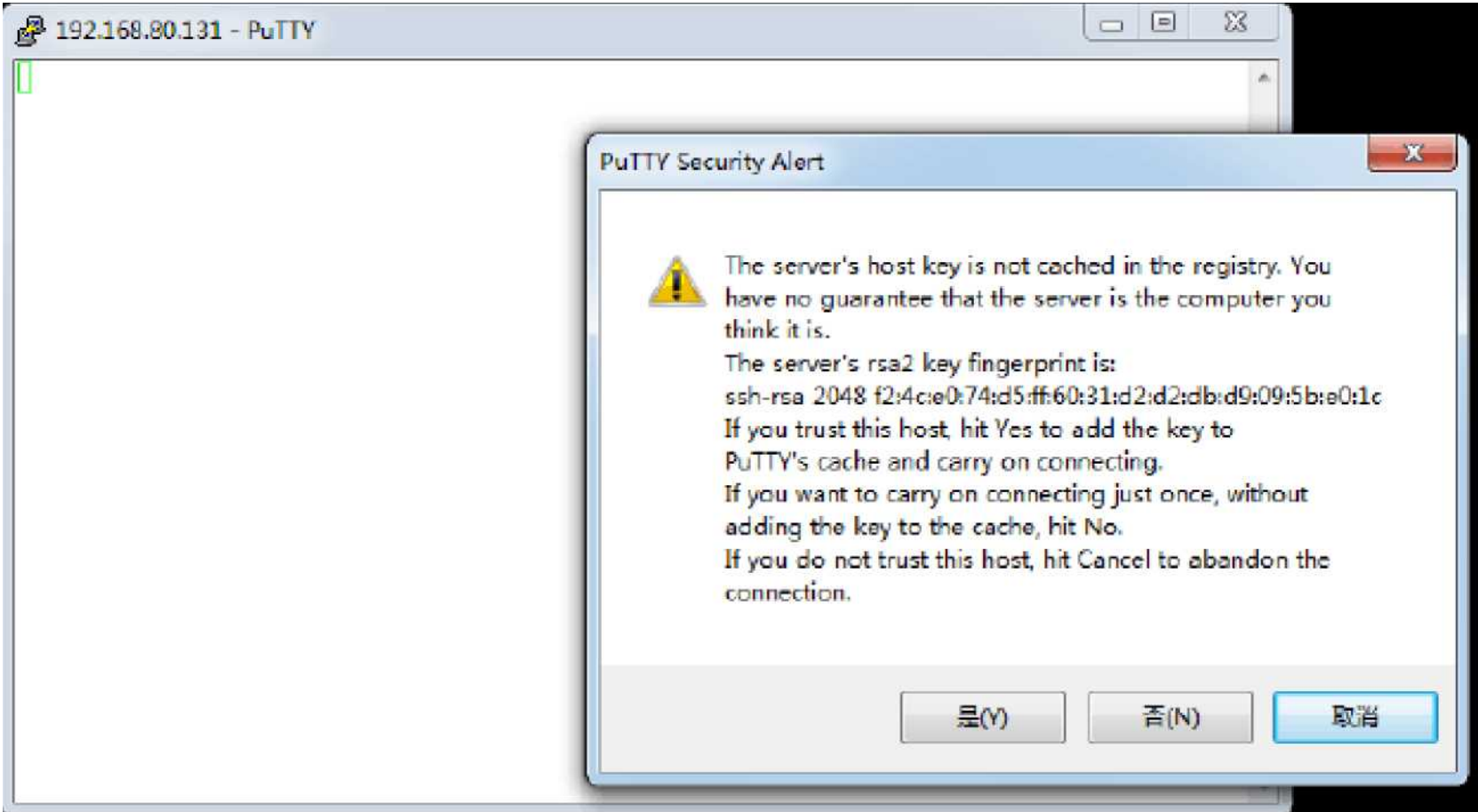
server

Load

Save

Delete

Close window on exit:
☐ Always
☐ Never
☒ Only on clean exit



摩 stuKubuntu™



login as: sm

3tu@192.16B .80.131¹ s password:

Welcome to Ubuntu 14.04.1 LTS (SNU/LiniiK 3.13.0-32-generic x86_64|i

* Da s^zaent at i on.: ht tp s : //he Ip . Ubuntu . ccra/

Last login: Tue 5ᵑP

20 : 52 : 11 2Q14

3tU@Ui>UltU : |

实验2 VMware虚拟机网络设置

背景知识：

VMWare提供了三种工作模式：bridged（桥接模式）、NAT（网络地址转换模式）和host-only（主机模式）。

（桥接模式）

在这种模式下，VMWare虚拟出来的操作系统就像是局域网中的一台独立的主机，它可以访问网内任何一台机器。使用者需要手工为虚拟系统配置IP地址、子网掩码，而且还要和宿主机处于同一网段，这样虚拟系统才能和宿主机进行通信。

使用桥接模式的虚拟系统和宿主机的关系，就像连接在同一个Hub上的两台电脑。想让它们相互通讯，你就需要为虚拟系统配置IP地址和子网掩码，否则就无法通信。

（主机模式）

在某些特殊的网络调试环境中，要求将真实环境和虚拟环境隔离开，这时你就可采用host-only模式。在host-only模式中，所有的虚拟系统是可以相互通信的，但虚拟系统和真实的网络是被隔离开的。

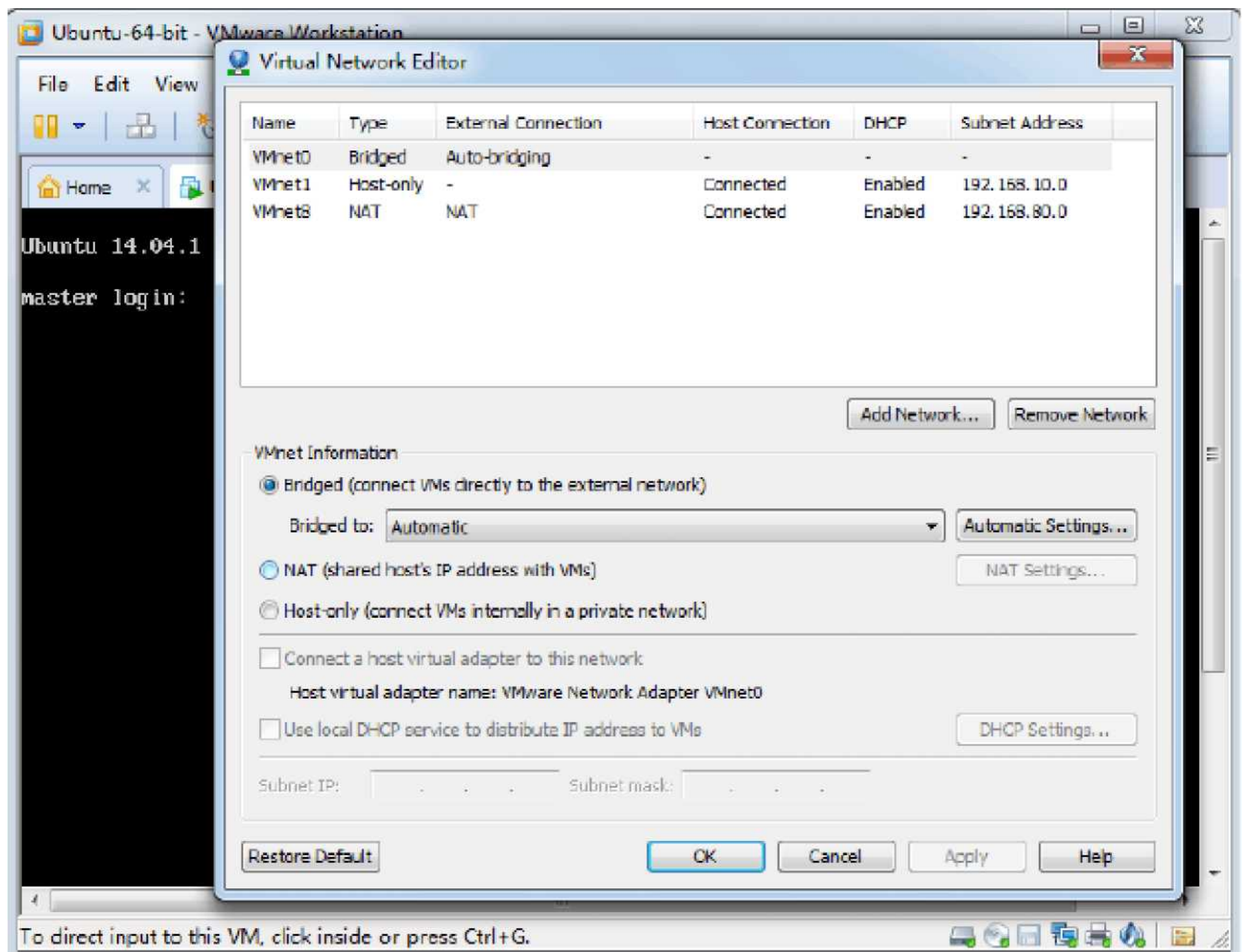
在host-only模式下，虚拟系统的TCP/IP配置信息（如IP地址、网关地址、

DNS服务器等），都是由VMnet1（host-only）虚拟网络的DHCP服务器来动态分配的。

（网络地址转换模式）

NAT模式，就是让虚拟系统借助NAT（网络地址转换）功能，通过宿主机所在的网络来访问公网。也就是说，使用NAT模式可以实现在虚拟系统里访问互联网。NAT模式下的虚拟系统的TCP/IP配置信息是由VMnet8（NAT）虚拟网络的DHCP服务器提供的，无法进行手工修改，因此虚拟系统也就无法和本局域网中的其他真实主机进行通讯。采用NAT模式最大的优势是虚拟系统接入互联网非常简单，不需要进行任何其他的配置，只需要宿主机能访问互联网即可。

实验目的：理解虚拟机网络的模式：bridge模式，host-only模式，NAT模式
实验步骤：在掌握背景知识的前提下，分别用bridge、host-only和NAT三种方式设置虚拟机的网络，使之能够上网。



可以参考如下视频：

实验3基于KVM的虚拟机创建虚拟磁盘并安装虚拟机 实验目的：通过kvm安装虚拟机，掌握kvm的常用命令和理解虚拟机的概念 实验步骤：

(1) 检验自己电脑的cpu是否支持虚拟化：

grep -E '(vmx|svm)' /proc/cpuinfo

以上内容仅为本文档的试下载部分，为可阅读页数的一半内容。如要下载或阅读全文，请访问：
<https://d.book118.com/278117041127006061>