

ORACLE® OAEC | HARMONYWIN

Linux 安装

- Linux Basis

讲师：Kano

课程目标

- 准备虚拟机 ★★☆☆
- 安装 ★★☆☆
- 进入系统 ★★☆☆

准备虚拟机 ★★☆☆

- 安装准备工作
 - 一台用来安装Linux操作系统的计算机或者服务器
 - 一份Linux安装介质
 - 一个合理的磁盘使用规划
 - 一个可用的网络地址IP、掩码、网关以及DNS配置（可选）

准备虚拟机 ★★☆☆

- 准备虚拟机
 - 此课程使用VMWARE的WORKSTATION虚拟机来实现
 - 创建一个虚拟机
 - 建议配置：
 - CPU 1*2cores
 - 内存 1GB
 - 硬盘 20GB
 - CD/DVD Device
 - 虚拟机提供虚拟CD/DVD设备，可以直接使用镜像文件（ISO）
 - Network Adapter
 - 虚拟机提供虚拟的网络设备，有多种网络模式可选，常用的是Host-only，Nat和Bridged

准备虚拟机 ★★☆☆

- 规划磁盘空间

- 规划磁盘前，我们先了解一下Linux操作系统的目录结构，与大家常用的Windows操作存在一定的差异

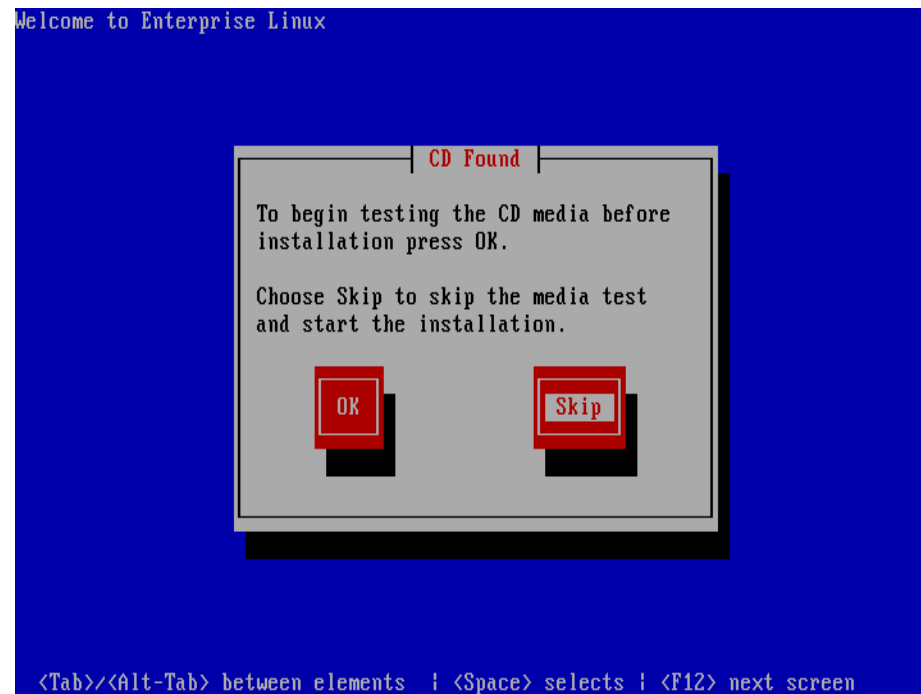
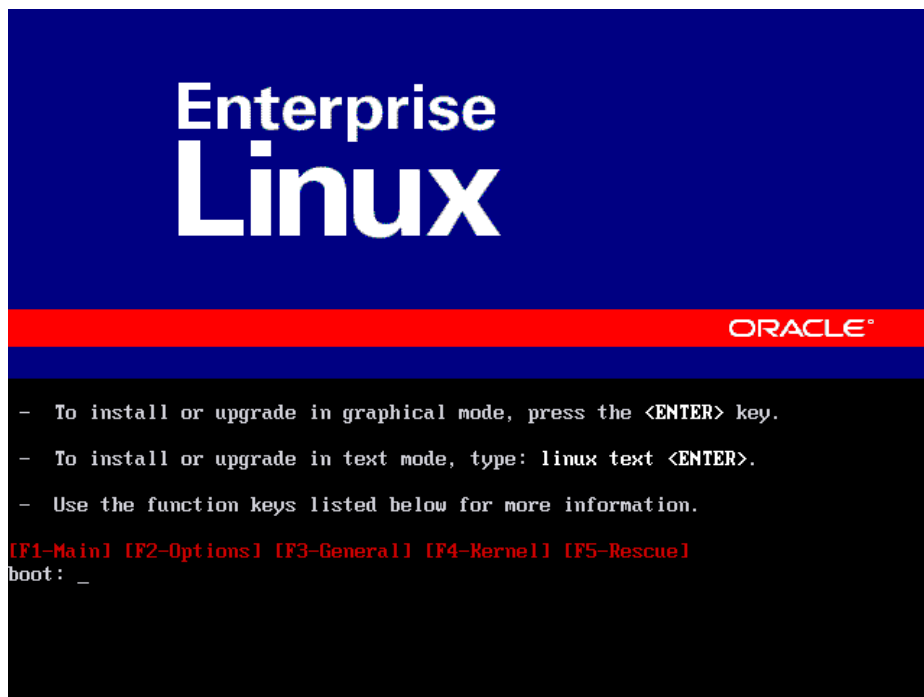
- Linux和UNIX的文件系统是一个以“/”为根的阶层式的树状文件结构，“/”因此被称为根目录。所有的文件和目录都置于根目录“/”之下。根目录/下面有/bin，/home，/usr等子目录。
 - 类似于在安装WINDOWS操作系统时的磁盘分区，如果把硬盘设备上所有空间都做成一个逻辑分区（C盘），对应到Linux操作中，就是只划分一个“/”分区，若想更细分的进行磁盘空间划分，通常在WINDOWS操作系统中会划分出多个逻辑分区，如D盘、E盘、F盘，分别存放我们的文件，可以自定义D盘存储Software，E盘Media，F盘Download，在Linux操作系统中同样也能实现类似的功能，比如我们可以划分出/usr分区用来存放用户安装的Software，/home分区用来做名用户的Home目录等。
 - 此课程为了简化安装过程，在安装过程中，使用Linux安装程序默认为我们划分的磁盘分区方案。关于RAID以及LVM，在后续的Linux课程中会详细的讲解。

安装

- 安装步骤
 - 欢迎界面，选择使用GUI界面还是TUI界面。
 - 语言及键盘布局选择
 - 磁盘分区
 - GRUB配置
 - 网络及主机名配置
 - 时区配置
 - 设置管理员密码
 - 选择自己需要的安装包和功能
 - 开始安装
 - 安装后配置

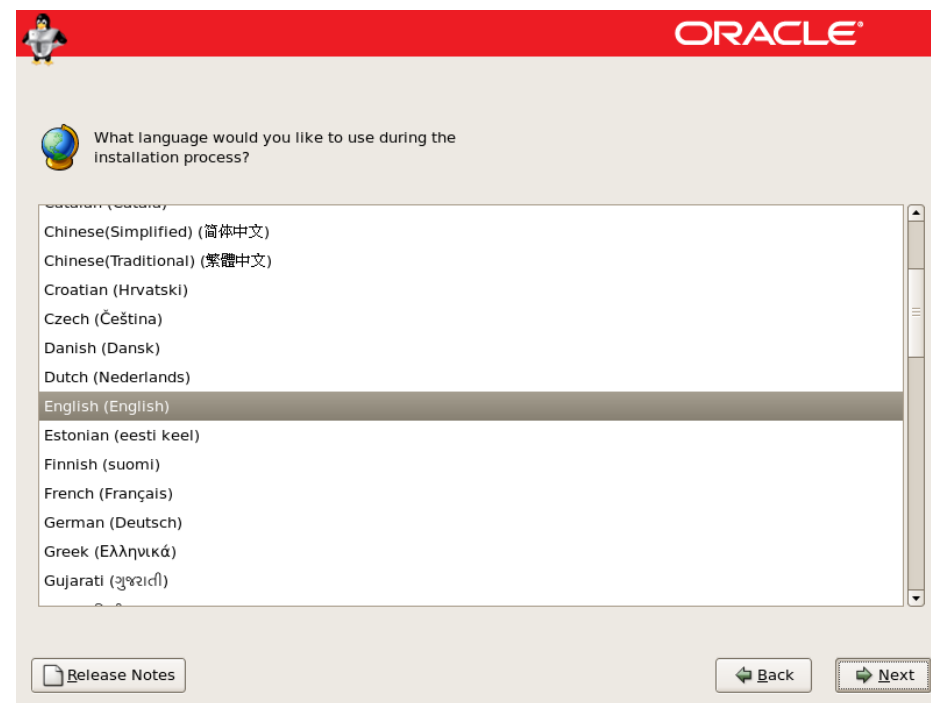
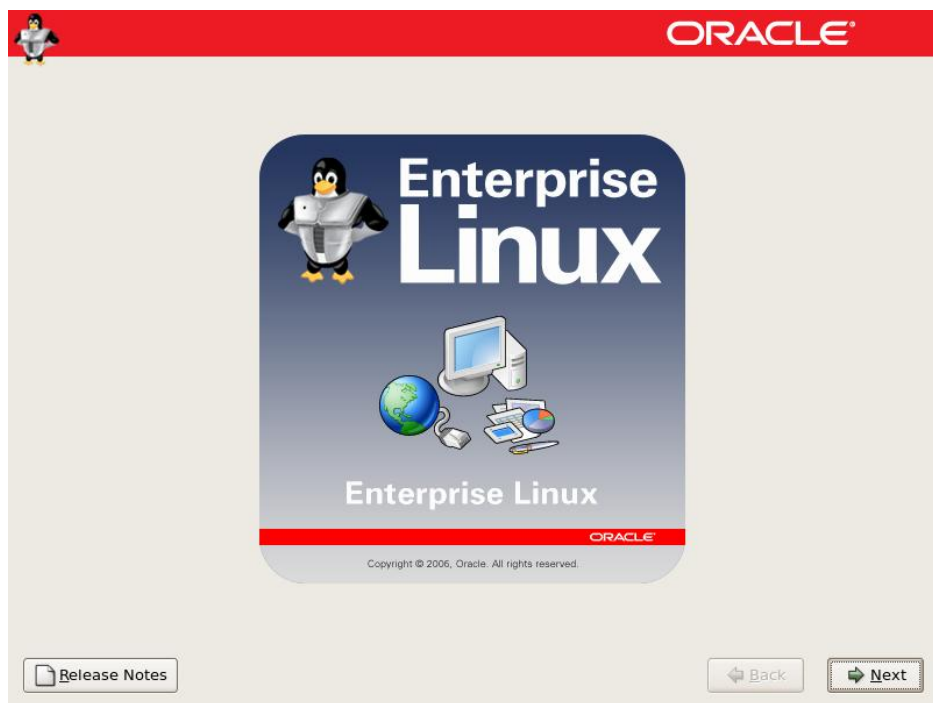
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- 欢迎界面，选择使用GUI界面还是TUI界面



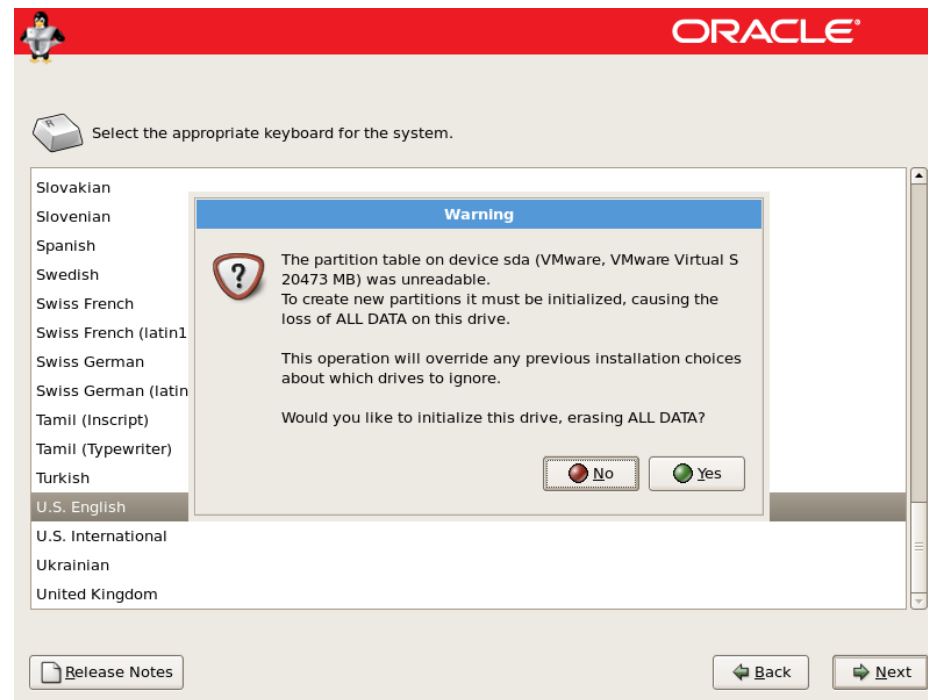
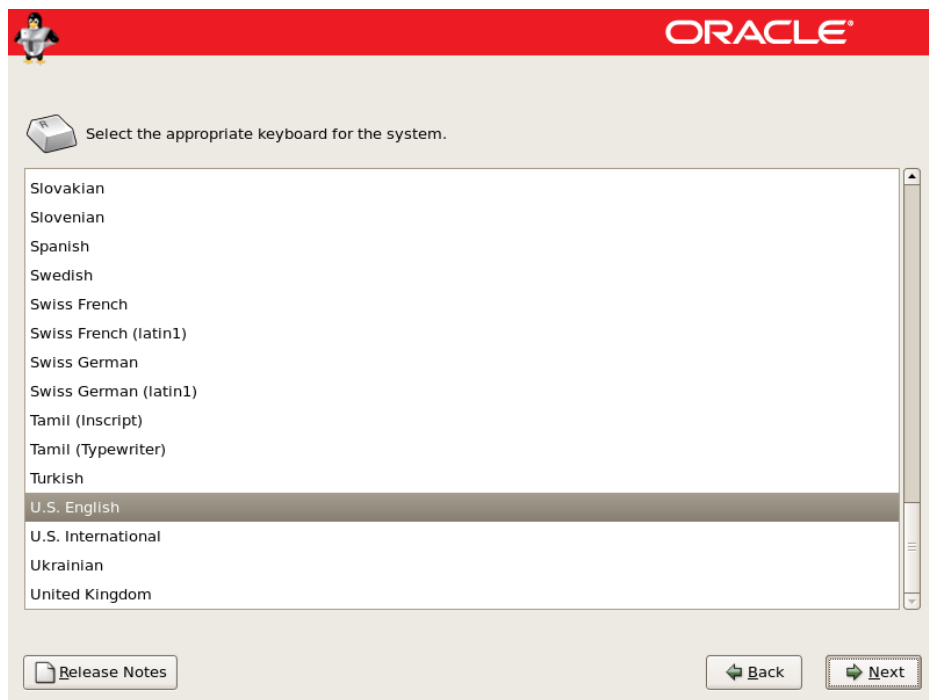
安装 ★★☆☆

- 语言及键盘布局选择




安装

- 语言及键盘布局选择



安装

• 磁盘分区

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Installation requires partitioning of your hard drive. By default, a partitioning layout is chosen which is reasonable for most users. You can either choose to use this or create your own.

☐ Remove all partitions on selected drives and create default layout.


☒ Remove Linux partitions on selected drives and create default layout.

☐ Use free space on selected drives and create default layout.


☐ Create custom layout.


Select the drive(s) to use for this installation.


<input checked="" type="checkbox"/>	sda	20473 MB	VMware, VMware Virtual S
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 Advanced storage configuration

☐ Review and modify partitioning layout

 Release Notes

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Drive /dev/sda (20473 MB) (Model: VMware, VMware Virtual S)

sda2
20371 MB

New

Edit

Delete


Reset


RAID


LVM

Device	Mount Point/ RAID/Volume	Type	Format	Size (MB)	Start	End
LVM Volume Groups						
VolGroup00						
LogVol01		swap	✓	20352		
LogVol00	/	ext3	✓	2016		
Hard Drives						
/dev/sda						

☐ Hide RAID device/LVM Volume Group members


 Release Notes

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安装

• GRUB配置、网络及主机名配置



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☒ The GRUB boot loader will be installed on /dev/sda.

☐ No boot loader will be installed.

You can configure the boot loader to boot other operating systems. It will allow you to select an operating system to boot from the list. To add additional operating systems, which are not automatically detected, click 'Add.' To change the operating system booted by default, select 'Default' by the desired operating system.

Default	Label	Device
<input checked="" type="checkbox"/>	Enterprise Linux	/dev/VolGroup00/LogVol00


AddEditDelete

A boot loader password prevents users from changing options passed to the kernel. For greater system security, it is recommended that you set a password.

☐ Use a boot loader password [Change password](#)

☐ Configure advanced boot loader options

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Network Devices

Active on Boot	Device	IPv4/Netmask	IPv6/Prefix
<input checked="" type="checkbox"/>	eth0	DHCP	Auto

Edit

Hostname

Set the hostname:

☒ automatically via DHCP

☐ manually (e.g., host.domain.com)

Miscellaneous Settings

Gateway:

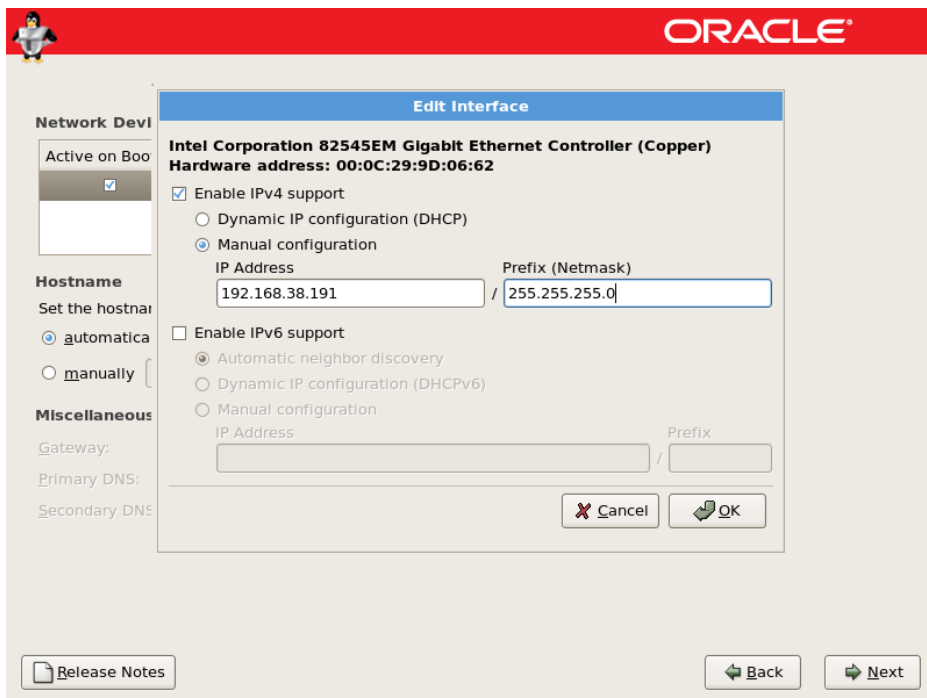
Primary DNS:

Secondary DNS:

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安装

• 网络及主机名配置



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Edit Interface

Intel Corporation 82545EM Gigabit Ethernet Controller (Copper)
Hardware address: 00:0C:29:9D:06:62

☒ Enable IPv4 support

☐ Dynamic IP configuration (DHCP)

☒ Manual configuration

IP Address: 192.168.38.191 / Prefix (Netmask): 255.255.255.0

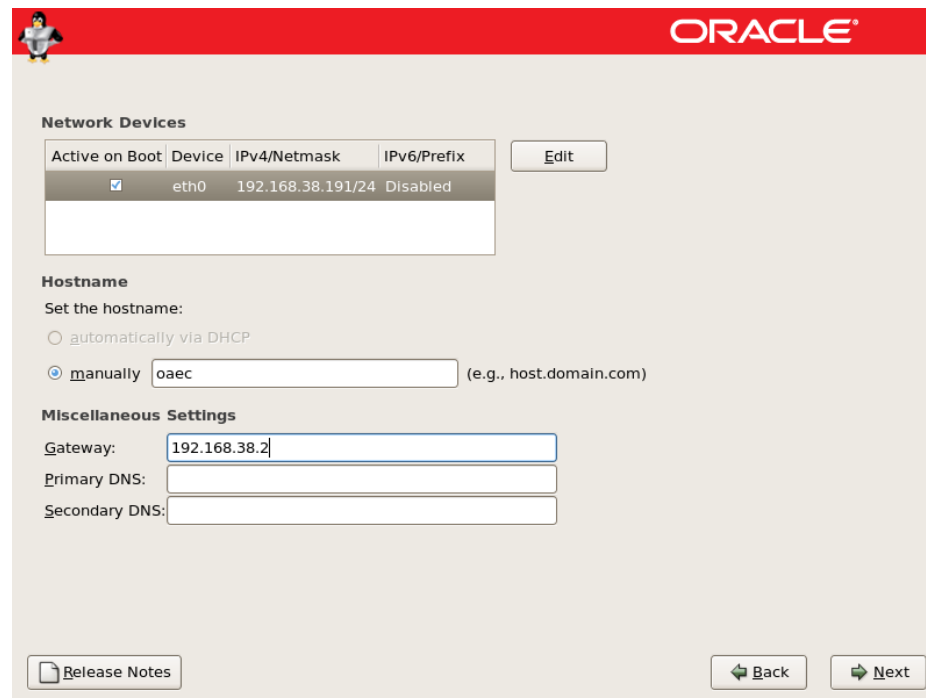
☐ Enable IPv6 support

☒ Automatic neighbor discovery

☐ Dynamic IP configuration (DHCPv6)

☐ Manual configuration

IP Address: / Prefix:



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Network Devices

Active on Boot	Device	IPv4/Netmask	IPv6/Prefix
<input checked="" type="checkbox"/>	eth0	192.168.38.191/24	Disabled

Hostname

Set the hostname:

☐ automatically via DHCP

☒ manually oaec (e.g., host.domain.com)

Miscellaneous Settings

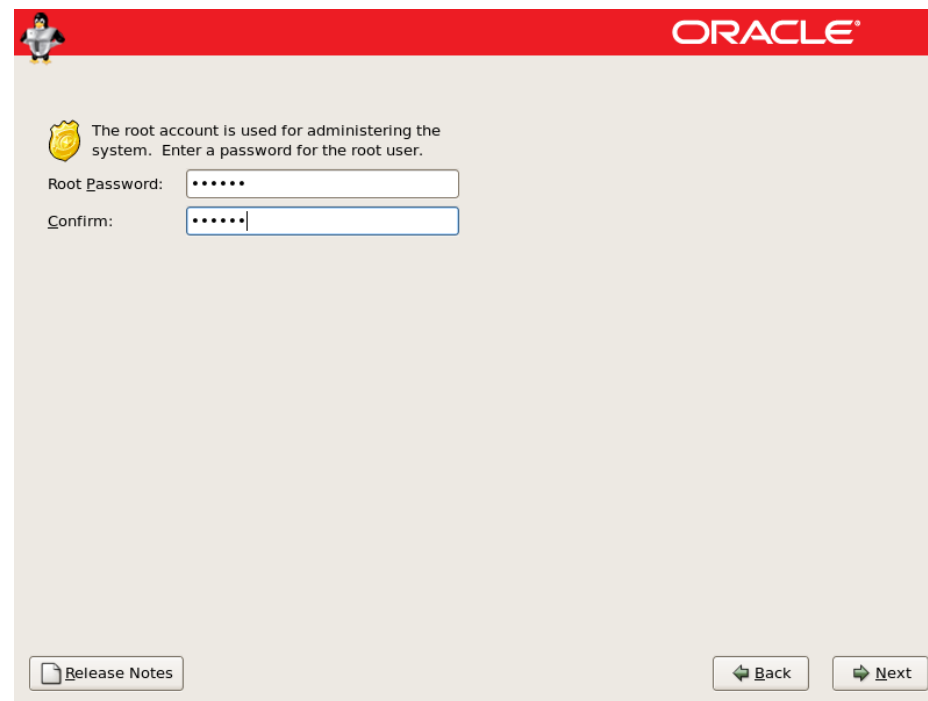
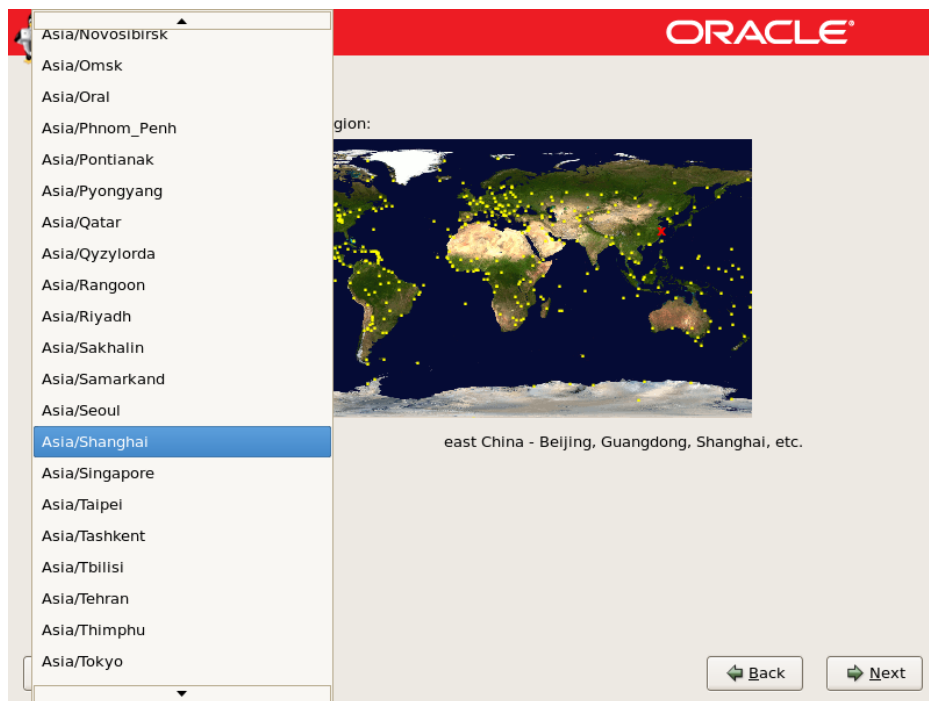
Gateway: 192.168.38.2

Primary DNS:

Secondary DNS:

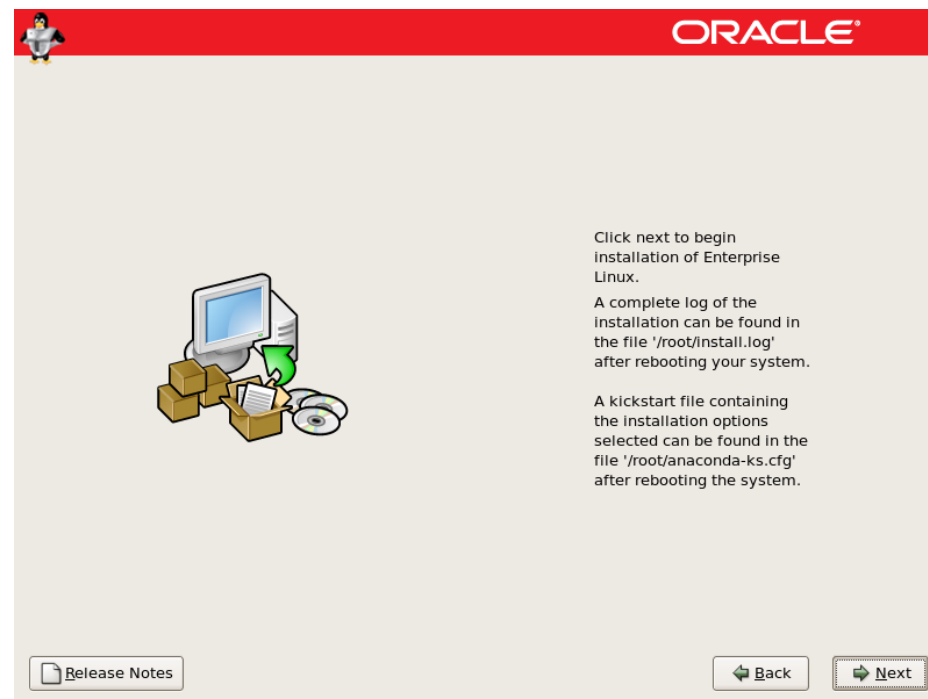
安装 ★★☆☆

- 时区配置、设置管理员密码



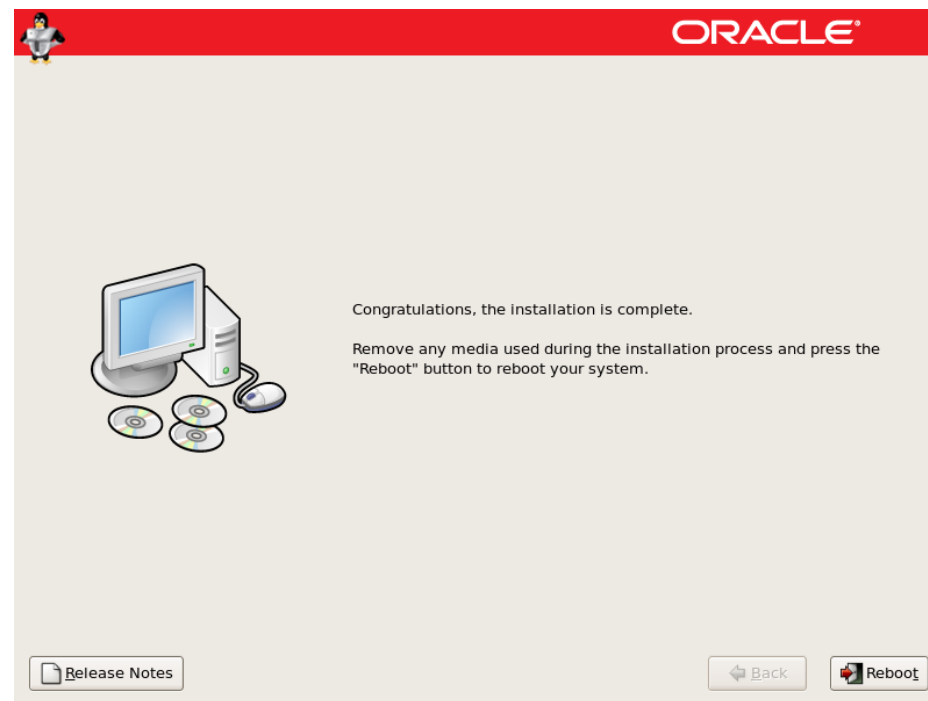
安装

- 选择自己需要的安装包和功能



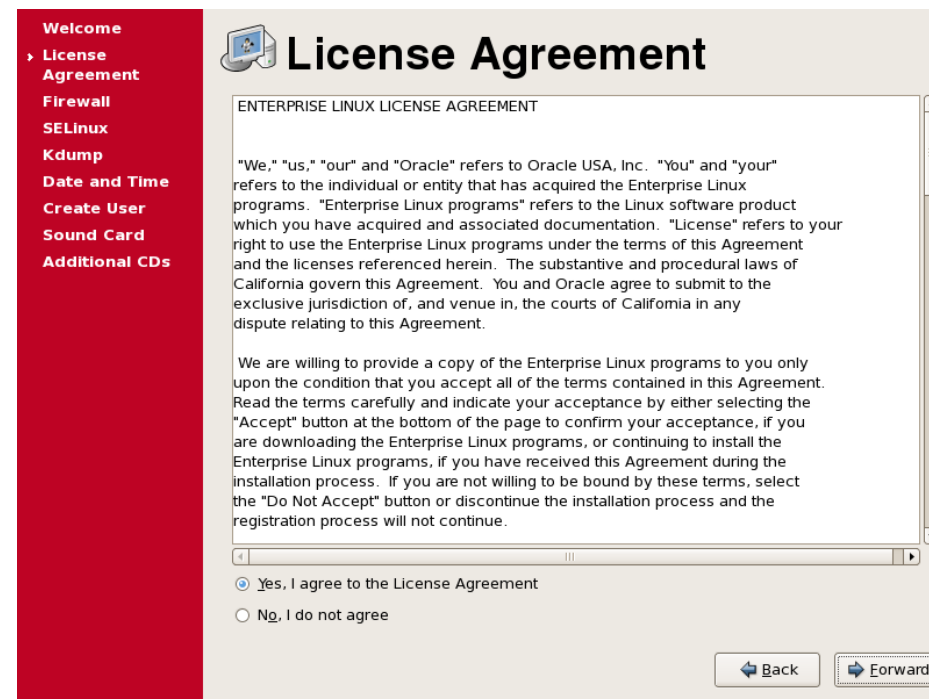
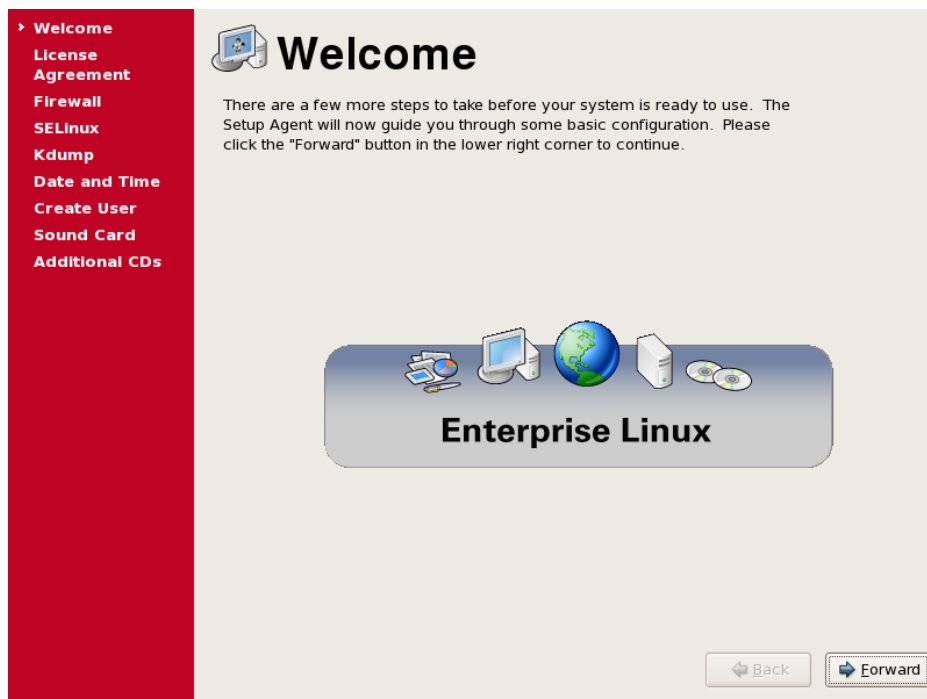
安装

- 开始安装



安装

• 安装后配置



安装

• 安装后配置

Welcome

License Agreement

Firewall

SELinux


Kdump

Date and Time

Create User

Sound Card

Additional CDs

 **Firewall**

You can use a firewall to allow access to specific services on your computer from other computers and prevent unauthorized access from the outside world. Which services, if any, do you wish to allow access to?

Firewall: Enabled

Trusted s: Disabled

☐ Mail (SMTP)

☐ NFS4

☒ SSH

☐ Samba

☐ Secure WWW (HTTPS)

Other ports

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 **SELinux**

Security Enhanced Linux (SELinux) provides finer-grained security controls than those available in a traditional Linux system. It can be set up in a disabled state, a state which only warns about things which would be denied, or a fully active state. Most people should keep the default setting.

SELinux Setting: Disabled

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• 安装后配置

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> Kdump

Date and Time

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Kdump

Kdump is a kernel crash dumping mechanism. In the event of a system crash, kdump will capture information from your system that can be invaluable in determining the cause of the crash. Note that kdump does require reserving a portion of system memory that will be unavailable for other uses.

☐ Enable kdump?

Total System Memory (MB): 1000

Kdump Memory (MB):

Usable System Memory (MB): 872

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Kdump

> Date and Time

Create User

Sound Card

Additional CDs



Date and Time

Please set the date and time for the system.

Date & Time

Network Time Protocol

Date

◀ December ▶

◀ 2014 ▶

Sun	Mon	Tue	Wed	Thu	Fri	Sat
30	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3
4	5	6	7	8	9	10

Time

Current Time : 17:13:24

Hour :

Minute :

Second :

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安装

• 安装后配置

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Date and Time

► Create User

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Create User

It is recommended that you create a 'username' for regular (non-administrative) use of your system. To create a system 'username,' please provide the information requested below.

Username:

Full Name:

Password:

 It is highly recommended that a personal user account be created. If you continue without an account, you can only log in with the root account, which is reserved for administrative use only.

Continue

Create account

Use Network Login...

◀ Back

Forward ▶

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Kdump

Date and Time

Create User

► Sound Card

Additional CDs



Sound Card

An audio device has been detected in your computer.

Click the "Play" button to hear a sample sound. You should hear a series of three sounds. The first sound will be in the right channel, the second sound will be in the left channel, and the third sound will be in the center.

No soundcards were detected.

◀ Back

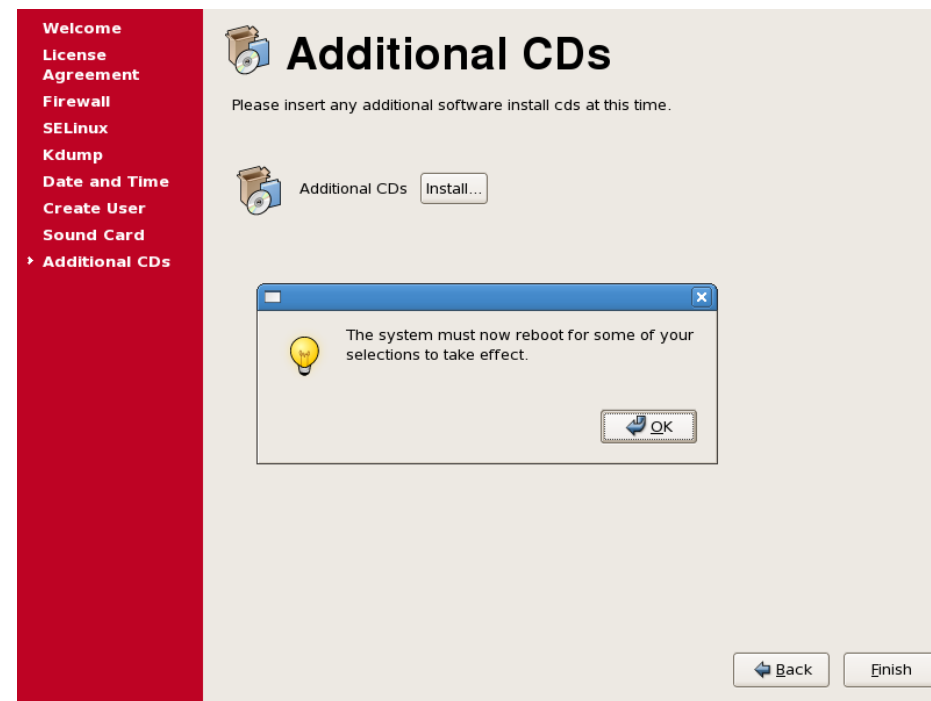
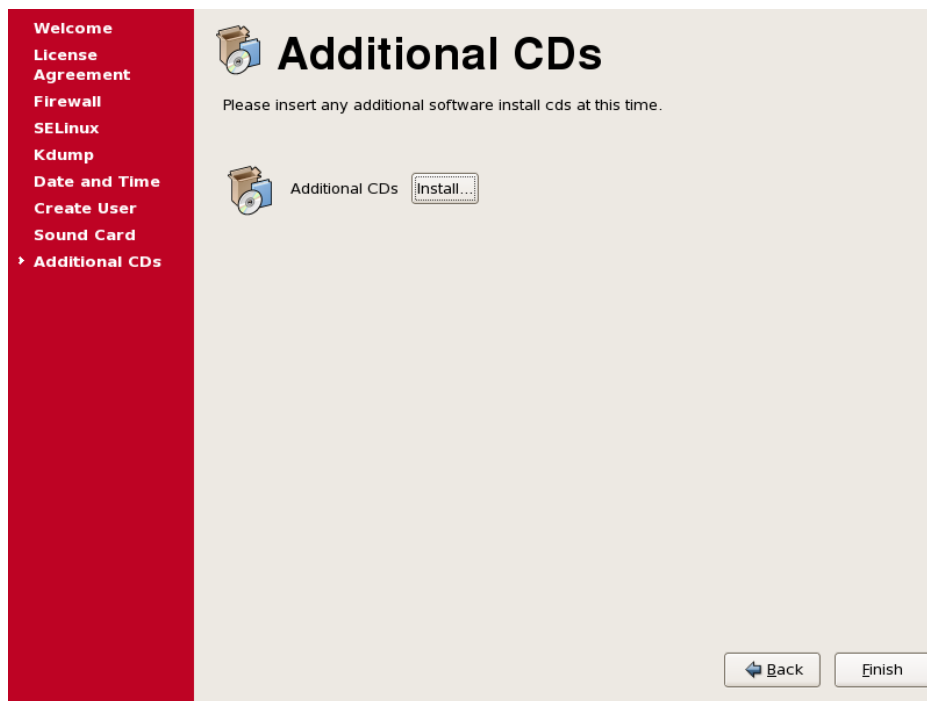
Forward ▶

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安装

• 安装后配置



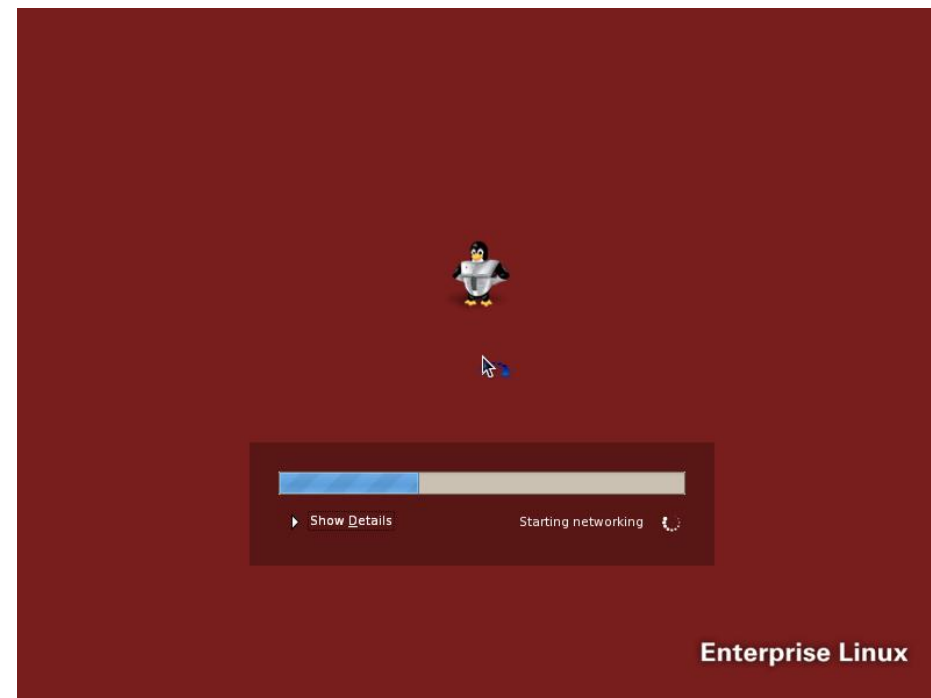
进入系统 ★★☆☆

- 重新启动

```
root (hd0,0)
Filesystem type is ext2fs, partition type 0x83
kernel /vmlinuz-2.6.18-164.el5 ro root=/dev/VolGroup00/LogVol00 rhgb quiet
[Linux-bzImage, setup=0x1e00, size=0x1d5c1c]
initrd /initrd-2.6.18-164.el5.img
[Linux-initrd @ 0x37cac000, 0x343e53 bytes]

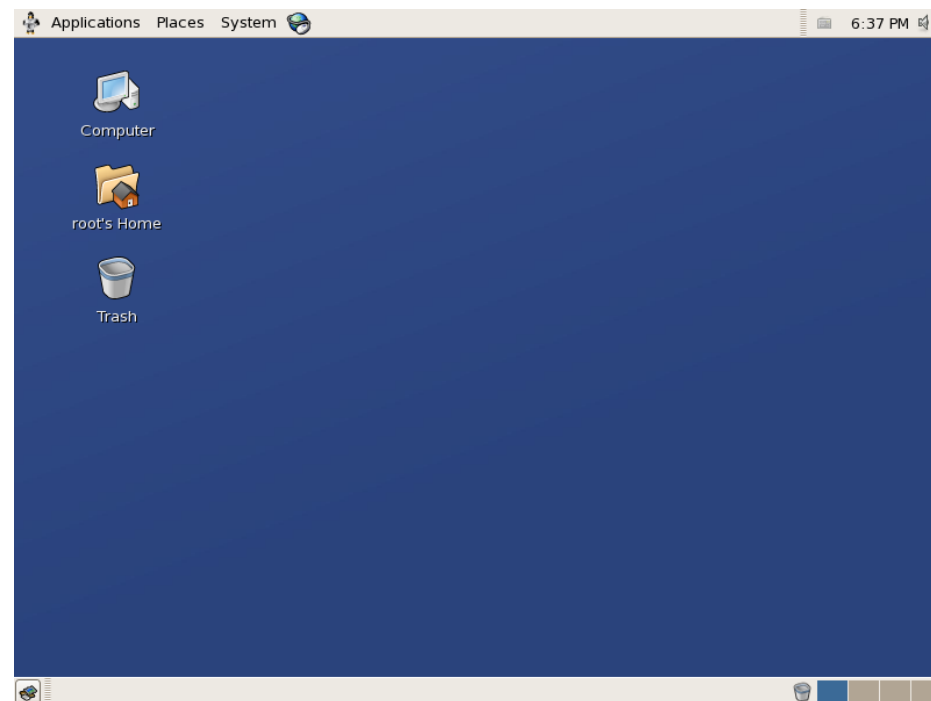
Memory for crash kernel (0x0 to 0x0) notwithin permissible range
Cannot setup NMI watchdog on CPU 0
Cannot setup NMI watchdog on CPU 1
-

Kernel alive
kernel direct mapping tables up to 100000000 @ 10000-15000
```



进入系统 ★★☆☆

- 进入系统



课程总结

- 本节课程内容

- 准备虚拟机
- 安装
- 进入系统

- 下节课程

- 文件及目录管理

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