



北京四通管理软件技术有限公司  
Beijing Stone Software Technology Co., Ltd



# POC标准化实施指南

## 基础环境

### 01 虚拟主机基础环境安装

版本: v1.0

目 录

修正历史 ..... 2

第 1 章 主要步骤..... 3

第 2 章 安装配置一览表..... 3

第 3 章 XenServer 的基本安装..... 3

    3.1 XenServer 的安装..... 3

    3.2 XenServer 补丁的安装.....19

    3.3 XenServer 启用多路径支持.....25

    3.4 XenServer dom0 优化 .....27

第 4 章 基本操作系统模板的制作.....28

    4.1 ISO Library 挂载 .....28

    4.2 操作系统模版制作流程.....32

    4.3 从模板创建新虚拟机.....46

第 5 章 基础环境安装完成检查.....52

产品版本 .....53

修正历史

修正	改变说明	更新者	日期
V1.0	新建	陈余南、李申君、 孙凌、杨华	2014年7月11日

## 第1章 主要步骤

本章节介绍了安装XenServer虚拟主机基础构架的基本过程。其包括了：

- XenServer的基本安装
- 存储、网络基本配置
- ISO库的配置
- 基本操作系统模板的准备

在开始本LAB前，请根据简介及环境准备章节中的POC准备检查单，仔细检查所需要的准备工作是否已经完备。

## 第2章 安装配置一览表

下表为XenServer环境安装使用的配置表，具体参数，如IP地址等，请根据具体环境自行修改。

XenServer 主机名	XenServer-test	备注
IP 地址配置	Static IP: 192.168.10.1 Mask: 255.255.255.0 Gateway:192.168.10.254	已实际实验环境为准
Root 密码	123456	可以自行设定密码
时间和时区	按实际设置	注意务必设定正确的时区和时间。
NTP 服务器	不设置	使用 Manual 手工设置时间
存储	本地磁盘	
ThinProvisioning	Enable	
ISO Library 地址	\\server\share	将 ISO 安装介质 copy 到你的 Windows 工作站，然后 share 出来，记录 Share 的 UNC 路径

## 第3章 XenServer 的基本安装

- XenServer的高级安装请参考工具包所附<[Xen400渠道培训-XenServer.ppt](#)>中的XenServer安装章节
- 安装XenServer，配置XenServer网络，及基本的安装设置
- 在管理工作站安装XenCenter，连接到XenServer，用以管理XenServer
- XenServer补丁安装、优化及启用多路径支持

### 3.1 XenServer 的安装

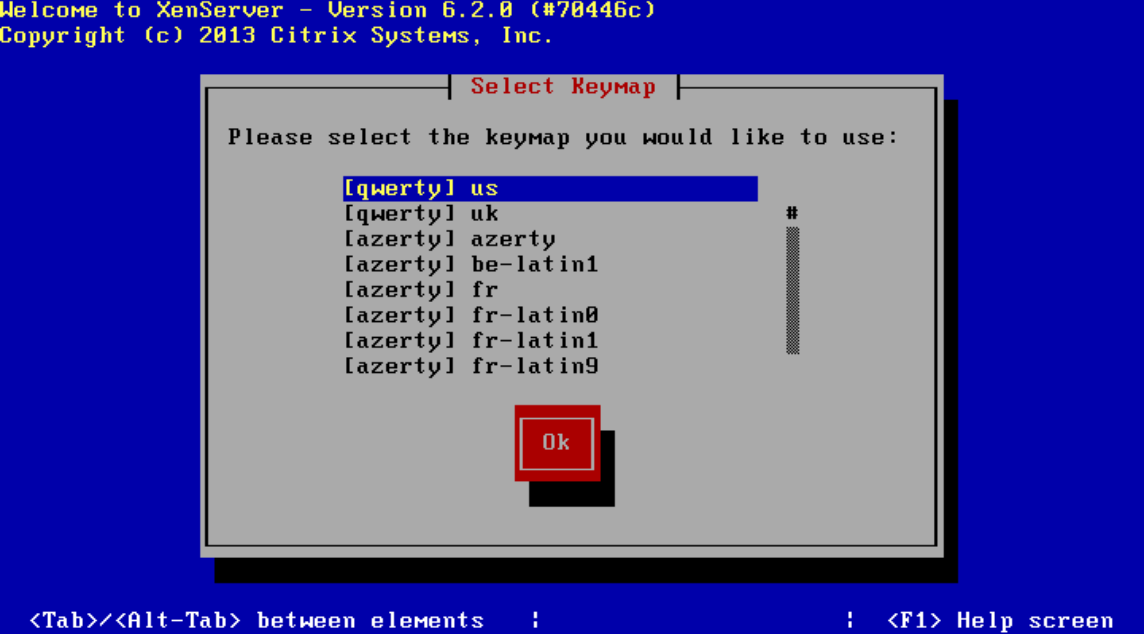
步骤	操作
----	----

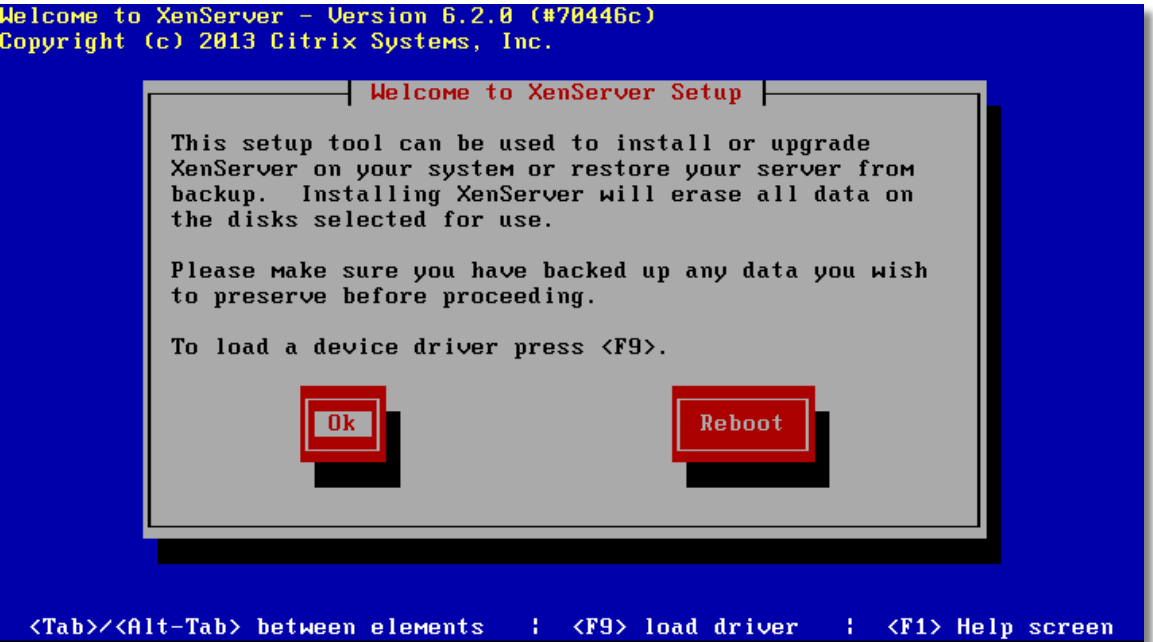
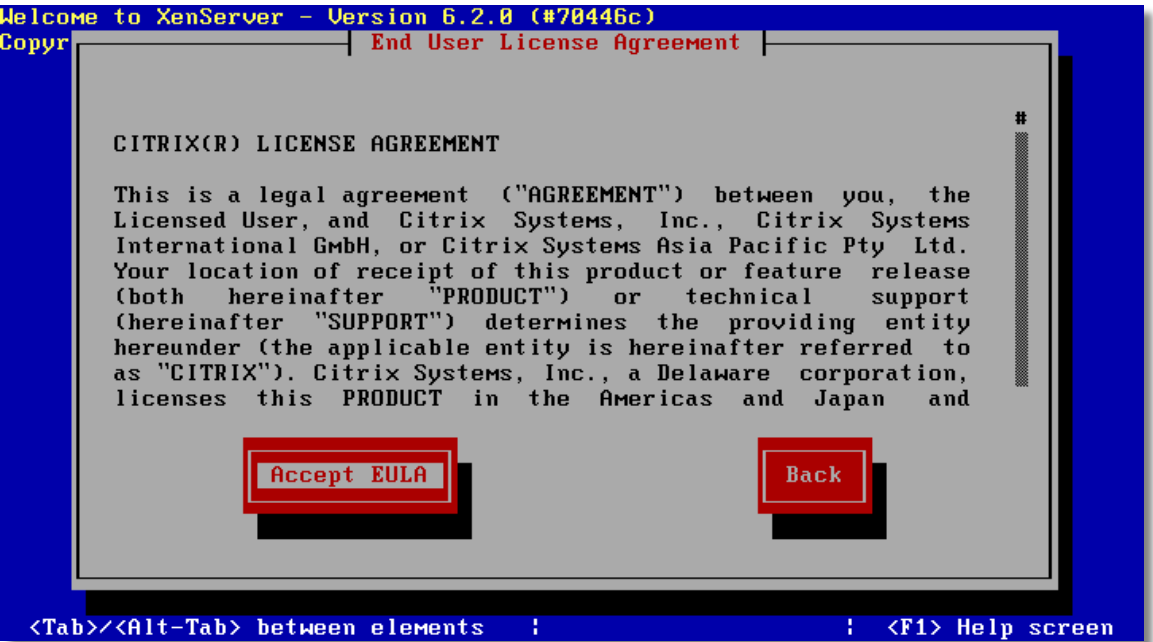
步骤	操作
1.	<p>注意，XenServer 属于 Type-1 的 Hypervisor，是直接安装在硬件上的，不需要底层操作系统的支持，下图说明了两种 Hypervisor 的区别</p> <h3>Type-1 和 Type-2 Hypervisor</h3> <p><b>类型 1</b></p> <p>奇主 { 虚拟机 (VM) 1 虚拟机 (VM) 2 }</p> <p>宿主 { 虚拟机监视器 (Hypervisor) 计算机硬件 (Hardware) }</p> <p>Xen, VMware ESX, Microsoft Hyper-V</p> <p><b>类型 2</b></p> <p>奇主 { 虚拟机 (VM) 1 虚拟机 (VM) 2 }</p> <p>宿主 { 虚拟机监视器 (Hypervisor) 应用 操作系统 (OS) 计算机硬件 (Hardware) }</p> <p>VMware Workstation, Oracle VirtualBox, QEMU, KVM, Moka!</p>
2.	<p>服务器 BIOS 典型设置</p> <ul style="list-style-type: none"> <li>• BIOS 恢复出厂默认设置</li> <li>• 调准系统时钟</li> <li>• Enable VT or AMD/V, Disable VT-D</li> <li>• Disable C-state, Turbo mode</li> <li>• Disable executive lock bit</li> <li>• Enable remote console(if IBM server)</li> <li>• Boot Manager-&gt;Add Boot Option-&gt;选 Legacy only ( if IBM Server)</li> <li>• Disable Multi-thread (XD 项目需要的话开启)</li> <li>• 本地磁盘设置成 RAID1 或 RAID 1/0</li> <li>• 如果磁盘以前安装过 VMware 或其它 OS, 重新初始化 RAID 10</li> <li>• BIOS Power Regulator for Maximum Performance</li> </ul>

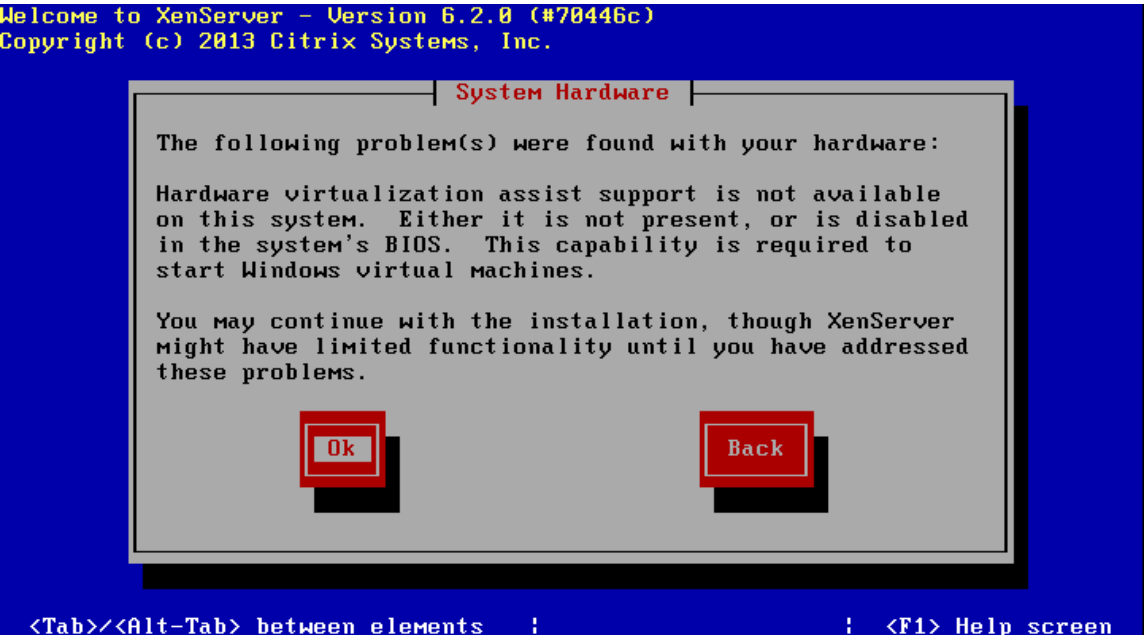
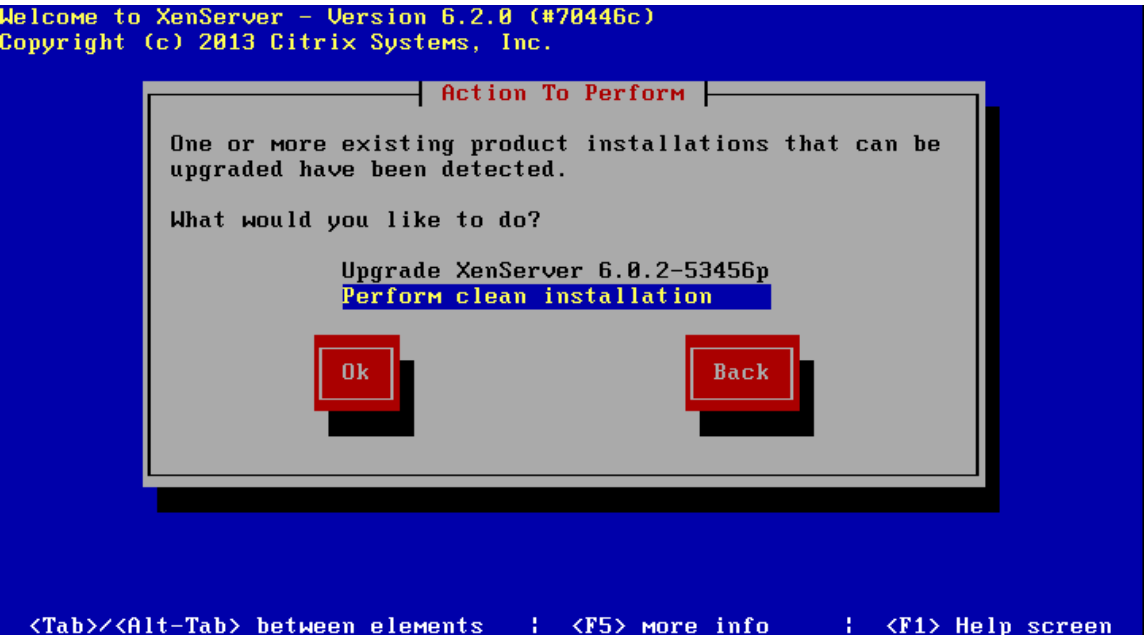
步骤	操作
3.	<div><div>将光盘放入主机驱动器，并从光盘启动 BIOS 设置光盘启动</div><div><div>PhoenixBIOS Setup Utility</div><div><div>MainAdvancedSecurityBootExit</div><div><div>CD-ROM Drive +Hard Drive +Removable Devices Network boot from Intel E1000 Network boot from Intel E1000 #2 Network boot from Intel E1000 #3 Network boot from Intel E1000 #4 Network boot from Intel E1000 #5</div><div><div>Item Specific Help</div><div>Keys used to view or configure devices: &lt;Enter&gt; expands or collapses devices with a + or - &lt;Ctrl+Enter&gt; expands all &lt;+&gt; and &lt;-&gt; moves the device up or down. &lt;n&gt; May move removable device between Hard Disk or Removable Disk &lt;d&gt; Remove a device that is not installed.</div></div></div><div><div>F1 Help ↑↓ Select Item -/+ Change Values F9 Setup Defaults Esc Exit ↔ Select Menu Enter Select ► Sub-Menu F10 Save and Exit</div></div></div></div></div>
4.	<div><div>启动按 F2，进入高级模式安装</div><div><div><div>CITRIX®   XenServer™</div><div>Welcome to XenServer.  - To install or upgrade press the &lt;ENTER&gt; key.  [F1-Standard] [F2-Advanced] [F3-XCP mode] boot: _</div></div></div></div>

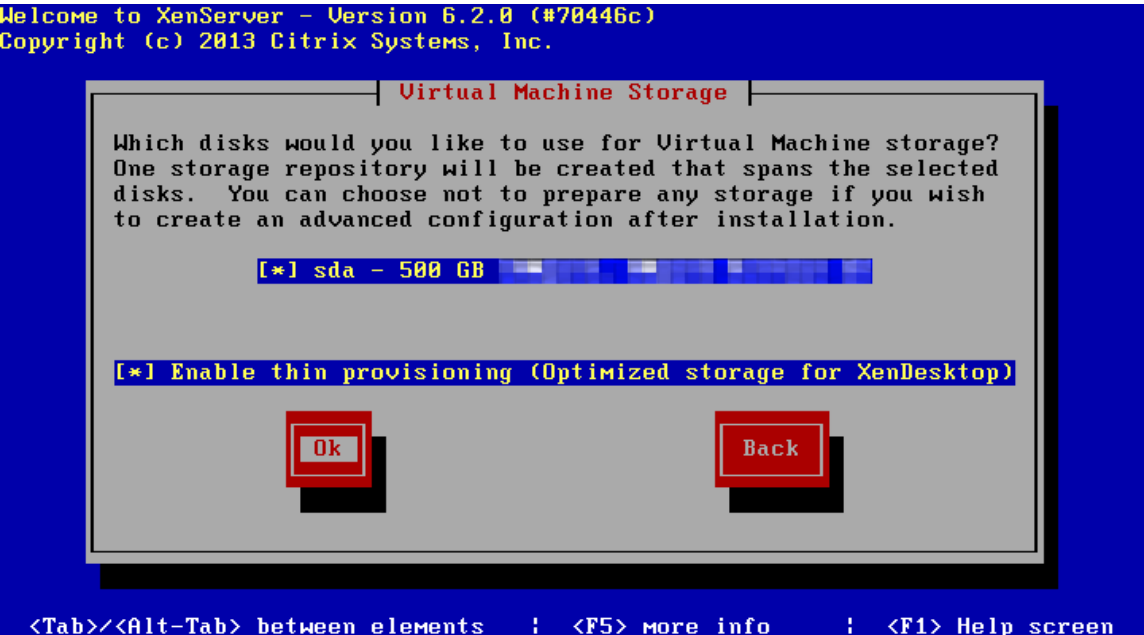
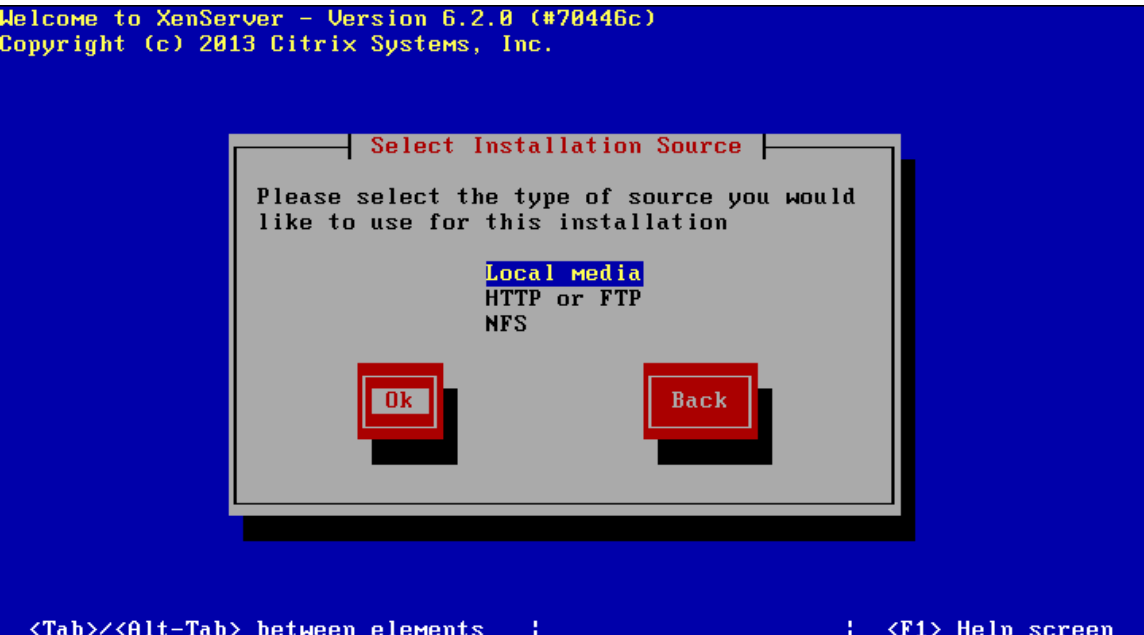
步骤	操作
5.	<p>键入 shell 进入高级安装模式命令行</p> 
6.	<p>调整磁盘 GPT 支持和 root 分区大小。输入命令，编辑文档 vi /opt/xensource/installer/constants.py</p> 

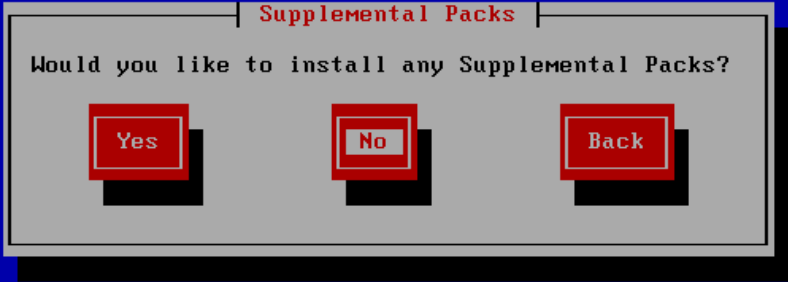
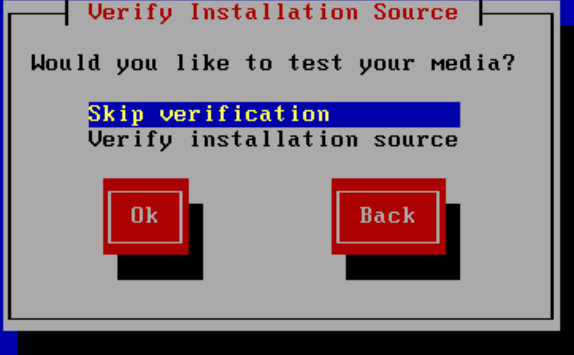
步骤	操作
7.	<p>按↓或向下滚动鼠标，一直浏览到大约 60%，找到红色框线的值</p> <pre> if with_hd:     return ERROR_STRINGS[ERROR_STRING_UNKNOWN_ERROR_WITH_HDI] % (logname, else:     return ERROR_STRINGS[ERROR_STRING_UNKNOWN_ERROR_WITHOUT_HDI] % logname else:     return ERROR_STRINGS[ERROR_STRING_KNOWN_ERROR] % error  # minimum hardware specs: # memory checks should be done against MIN_SYSTEM_RAM_MB since libxc # reports the total system ram after the Xen heap. The UI should # display the value given by MIN_SYSTEM_RAM_MB_RAW. min_primary_disk_size = 12 #GB max_primary_disk_size_dos = 2047 #GB MIN_SYSTEM_RAM_MB_RAW = 1024 # MB MIN_SYSTEM_RAM_MB = MIN_SYSTEM_RAM_MB_RAW - 100  # Change this to True to enable GPT partitioning instead of DOS partitioning GPT_SUPPORT = True  XEN_MEM=1024 #GB XEN_WATCHDOG_TIMEOUT=300 #seconds  # filesystems and partitions (sizes in MB): root_size = 4096 = /opt/xensource/installer/constants.py 89/144 61% </pre>
8.	<p>修改成下面的值</p> <p>GPT_SUPPORT = False #用来关闭对 GPT 磁盘的支持，使用 MBR 磁盘</p> <p>root_size = 20480 #把默认的 root 分区 4096 默认值修改成 20480MB</p> <pre> if with_hd:     return ERROR_STRINGS[ERROR_STRING_UNKNOWN_ERROR_WITH_HDI] % (logname, else:     return ERROR_STRINGS[ERROR_STRING_UNKNOWN_ERROR_WITHOUT_HDI] % logname else:     return ERROR_STRINGS[ERROR_STRING_KNOWN_ERROR] % error  # minimum hardware specs: # memory checks should be done against MIN_SYSTEM_RAM_MB since libxc # reports the total system ram after the Xen heap. The UI should # display the value given by MIN_SYSTEM_RAM_MB_RAW. min_primary_disk_size = 12 #GB max_primary_disk_size_dos = 2047 #GB MIN_SYSTEM_RAM_MB_RAW = 1024 # MB MIN_SYSTEM_RAM_MB = MIN_SYSTEM_RAM_MB_RAW - 100  # Change this to True to enable GPT partitioning instead of DOS partitioning GPT_SUPPORT = False  XEN_MEM=1024 #GB XEN_WATCHDOG_TIMEOUT=300 #seconds  # filesystems and partitions (sizes in MB): root_size = 20480 I /opt/xensource/installer/constants.py [Modified] 95/144 65% </pre>

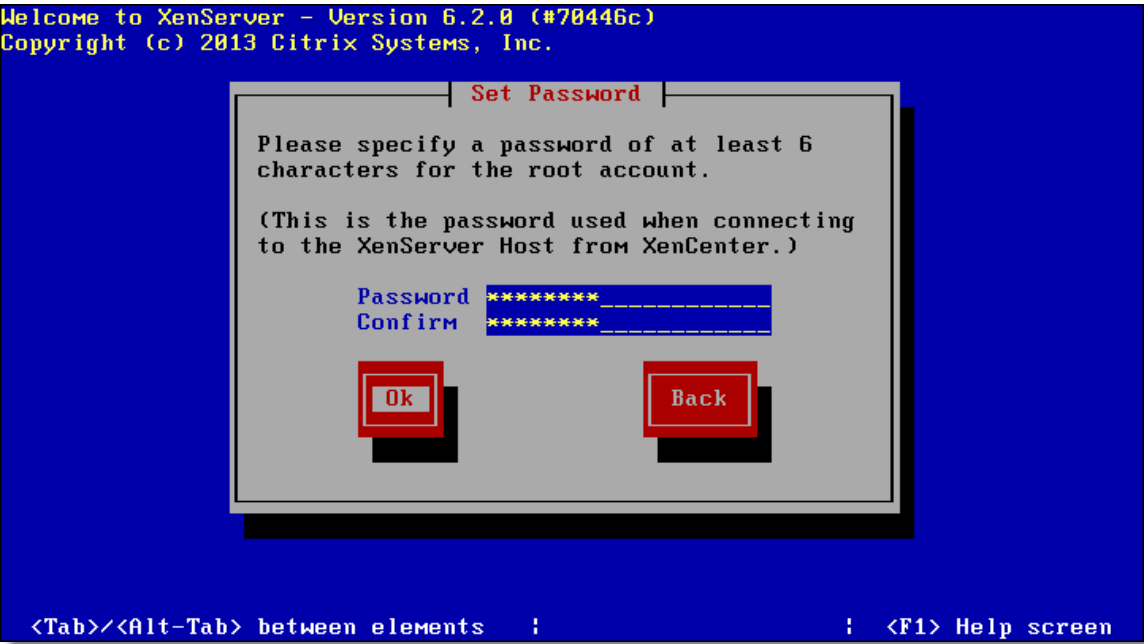
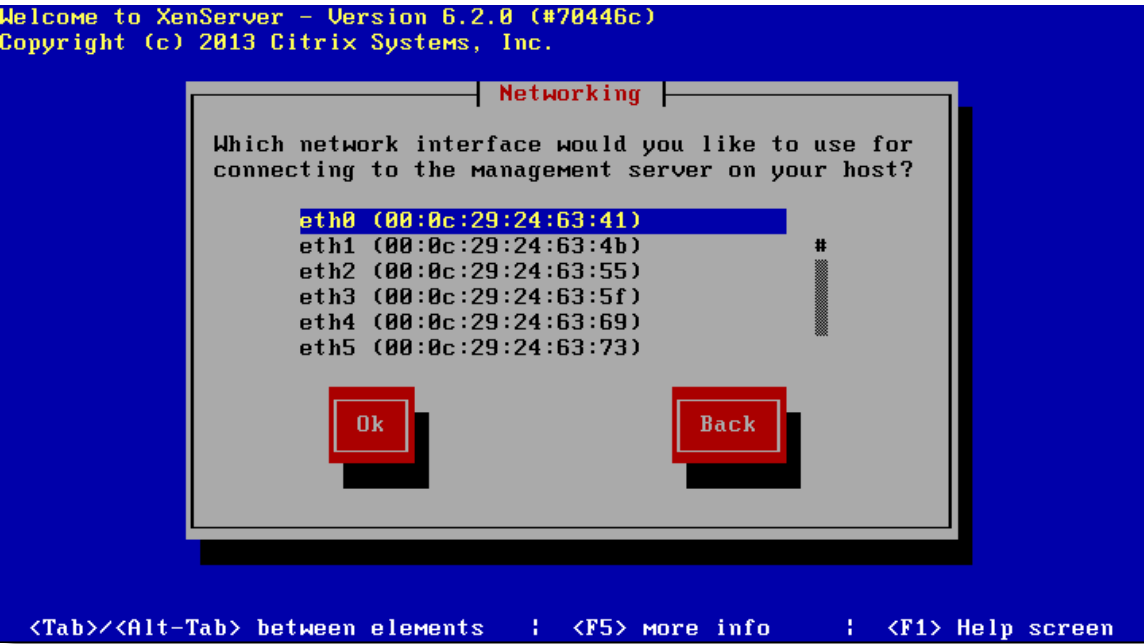
步骤	操作
9.	<p>按 ESC, 输入如下文本 :wq! 保存并退出</p> <pre> else:     return ERROR_STRINGS[ERROR_STRING_KNOWN_ERROR] % error  # minimum hardware specs: # memory checks should be done against MIN_SYSTEM_RAM_MB since libxc # reports the total system ram after the Xen heap. The UI should # display the value given by MIN_SYSTEM_RAM_MB_RAW. min_primary_disk_size = 12 #GB max_primary_disk_size_dos = 2047 #GB MIN_SYSTEM_RAM_MB_RAW = 1024 # MB MIN_SYSTEM_RAM_MB = MIN_SYSTEM_RAM_MB_RAW - 100  # Change this to True to enable GPT partitioning instead of DOS partitioning GPT_SUPPORT = False  XEN_MEM=1024 #GB XEN_WATCHDOG_TIMEOUT=300 #seconds  # filesystems and partitions (sizes in MB): root_size = 20480 rootfs_type = 'ext3' rootfs_label = "root-%s" % "".join([random.choice(string.ascii_lowercase)                                      for x in range(8)]) swap_location = '/var/swap/swap.001' :wq!_ </pre>
10.	<p>输入 exit, 回到安装界面, 选择[qwerty] us</p> <p>Welcome to XenServer - Version 6.2.0 (#70446c) Copyright (c) 2013 Citrix Systems, Inc.</p>  <p>&lt;Tab&gt;/&lt;Alt-Tab&gt; between elements : &lt;F1&gt; Help screen</p>

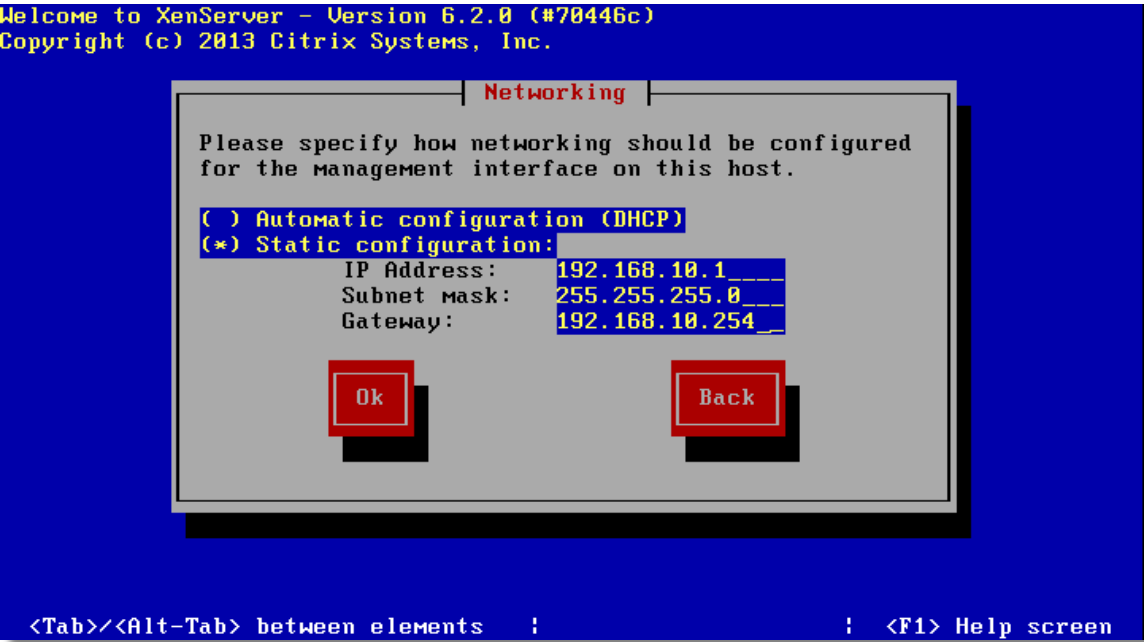
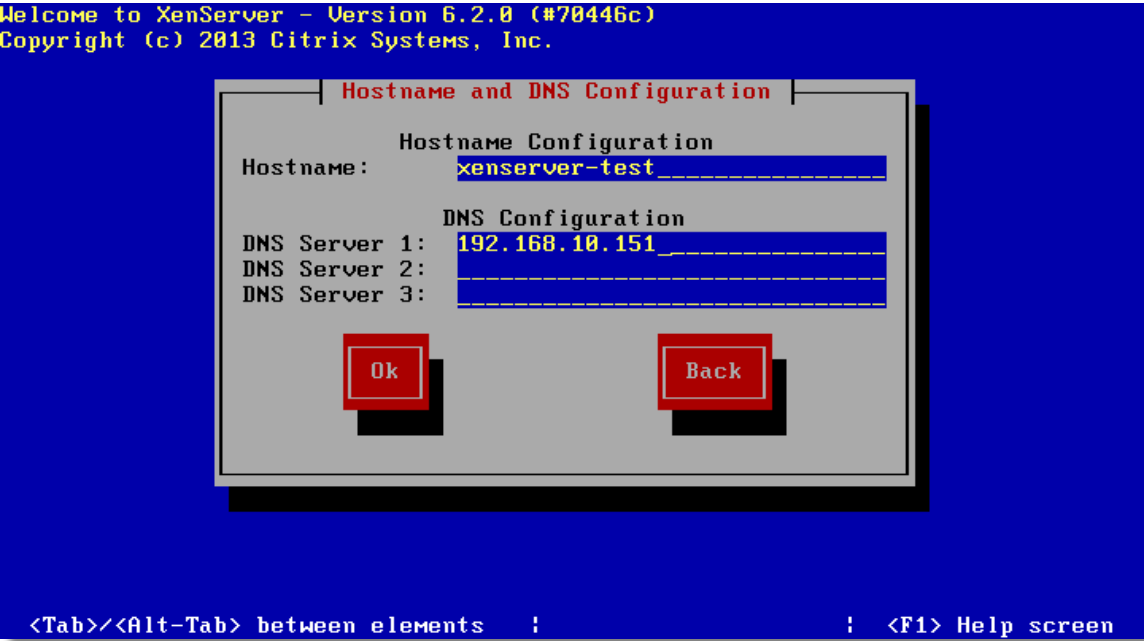
步骤	操作
11.	<p>点 OK</p>  <p>&lt;Tab&gt;/&lt;Alt-Tab&gt; between elements : &lt;F9&gt; load driver : &lt;F1&gt; Help screen</p>
12.	<p>点 Accept EULA</p>  <p>&lt;Tab&gt;/&lt;Alt-Tab&gt; between elements : : &lt;F1&gt; Help screen</p>

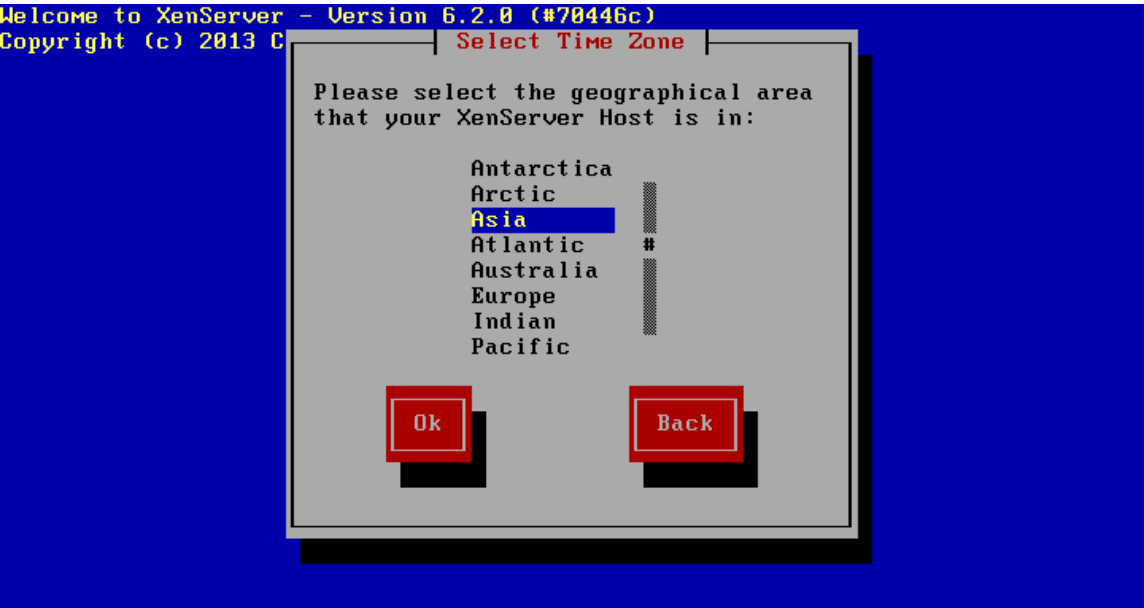
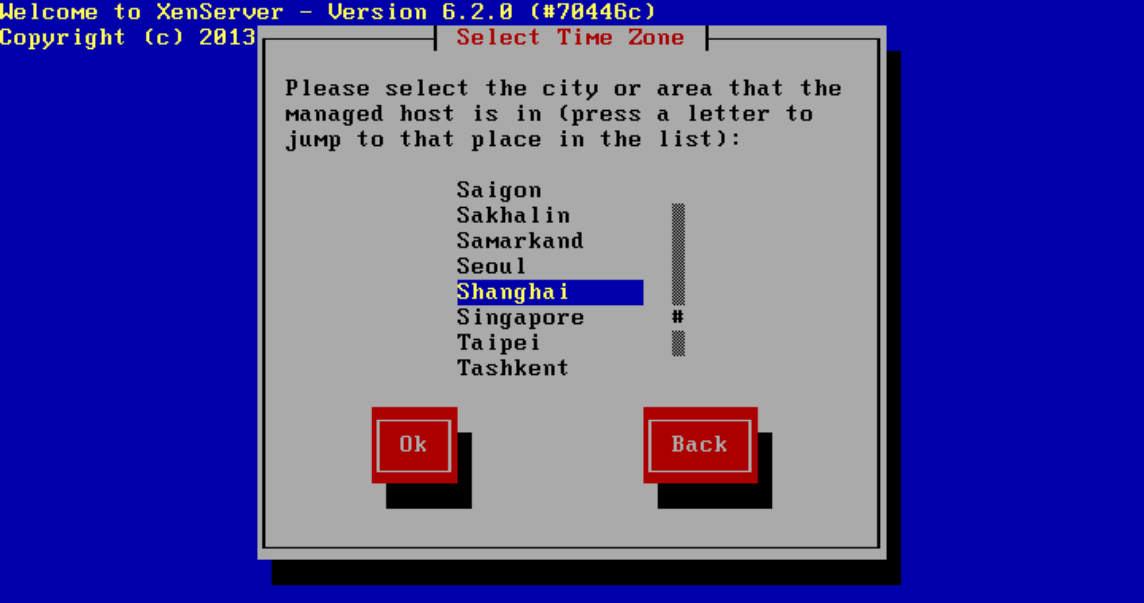
步骤	操作
13.	<p>如果出现这个警告，不必理会，点 OK</p>  <p>&lt;Tab&gt;/&lt;Alt-Tab&gt; between elements : : &lt;F1&gt; Help screen</p>
14.	<p>如果之前安装过其他版本的 XenServer，选择“Perform clean installation”</p>  <p>&lt;Tab&gt;/&lt;Alt-Tab&gt; between elements : &lt;F5&gt; more info : &lt;F1&gt; Help screen</p>

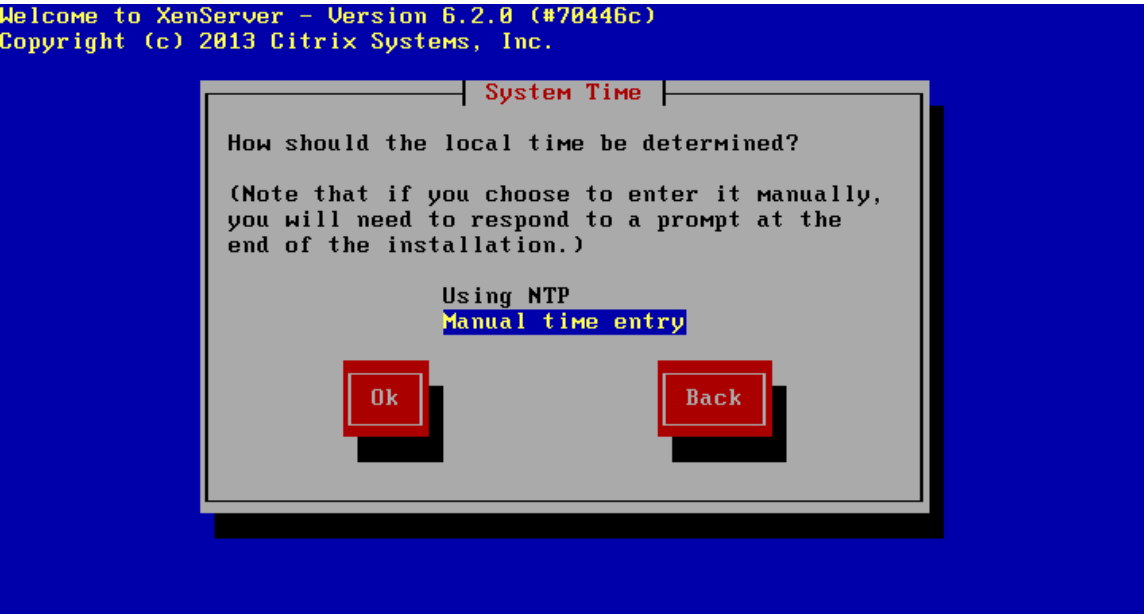
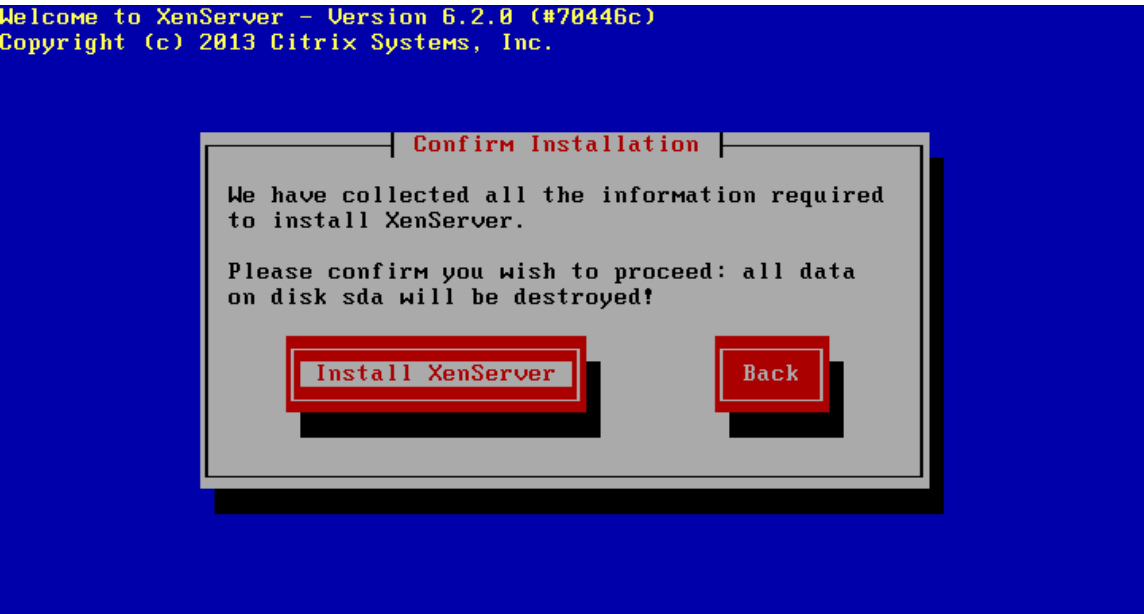
步骤	操作
15.	<p>选择 Enable thin provisioning(使用空格键选择), 为 XenDesktop 部署做优化</p>  <p>&lt;Tab&gt;/&lt;Alt-Tab&gt; between elements : &lt;F5&gt; more info : &lt;F1&gt; Help screen</p>
16.	<p>选择 Local media</p>  <p>&lt;Tab&gt;/&lt;Alt-Tab&gt; between elements : : &lt;F1&gt; Help screen</p>

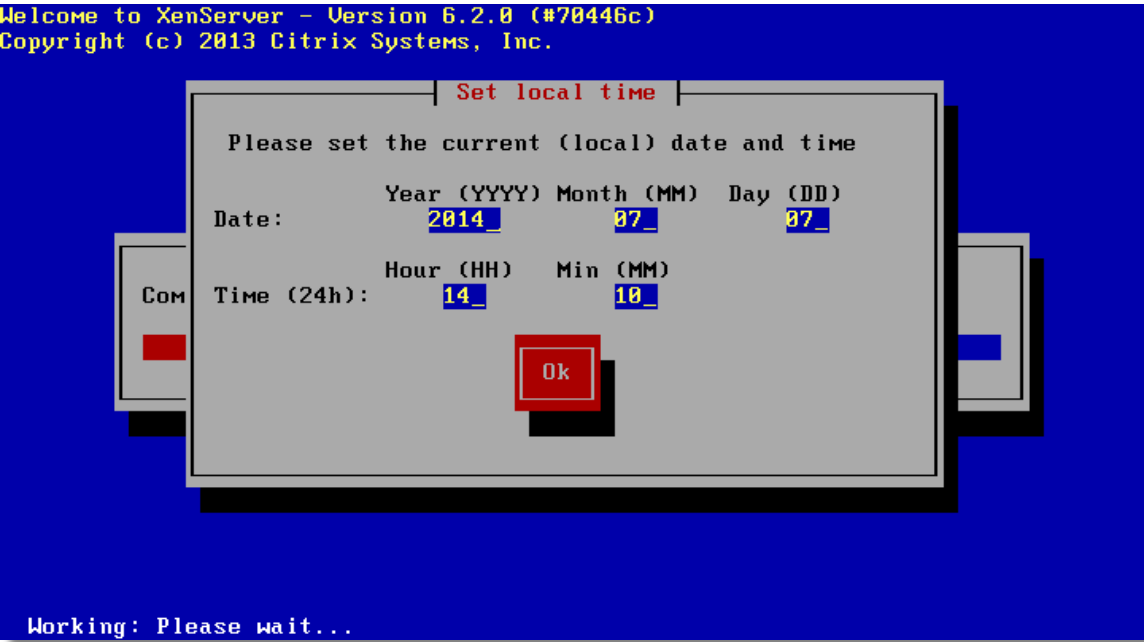
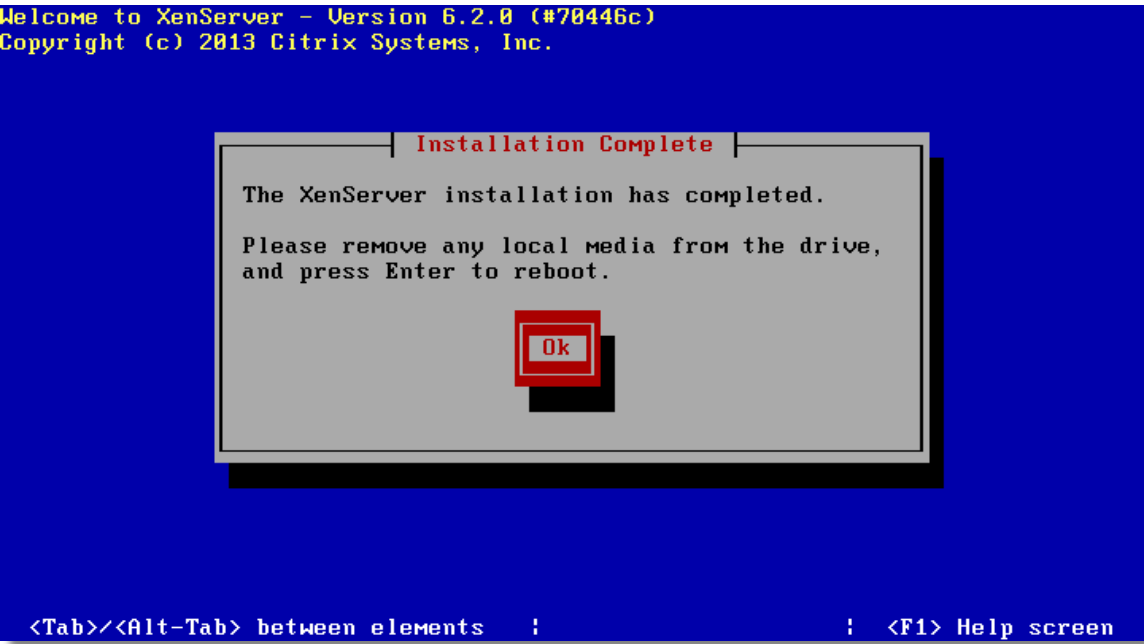
步骤	操作
17.	<p>Supplemental Packs 选择 No, 不安装帮助文档</p> <p>Welcome to XenServer - Version 6.2.0 (#70446c) Copyright (c) 2013 Citrix Systems, Inc.</p>  <p>&lt;Tab&gt;/&lt;Alt-Tab&gt; between elements : : &lt;F1&gt; Help screen</p>
18.	<p>选择 Skip verification, 跳过安装介质检测</p> <p>Welcome to XenServer - Version 6.2.0 (#70446c) Copyright (c) 2013 Citrix Systems, Inc.</p>  <p>&lt;Tab&gt;/&lt;Alt-Tab&gt; between elements : : &lt;F1&gt; Help screen</p>

步骤	操作
19.	<p>输入并设置 XenServer 登录密码</p>  <p>&lt;Tab&gt;/&lt;Alt-Tab&gt; between elements : : &lt;F1&gt; Help screen</p>
20.	<p>选择第一个网卡作为管理网口</p>  <p>&lt;Tab&gt;/&lt;Alt-Tab&gt; between elements : &lt;F5&gt; more info : &lt;F1&gt; Help screen</p>

步骤	操作
21.	<p>输入 IP 地址、掩码及网关</p>  <p>Welcome to XenServer - Version 6.2.0 (#70446c) Copyright (c) 2013 Citrix Systems, Inc.</p> <p><b>Networking</b></p> <p>Please specify how networking should be configured for the management interface on this host.</p> <p>( ) Automatic configuration (DHCP) (* ) Static configuration:</p> <p>IP Address: 192.168.10.1 Subnet mask: 255.255.255.0 Gateway: 192.168.10.254</p> <p>Ok Back</p> <p>&lt;Tab&gt;/&lt;Alt-Tab&gt; between elements : : &lt;F1&gt; Help screen</p>
22.	<p>输入 Host-name: XenServer-test, DNS Server 1: 192.168.10.151 192.168.10.151 是规划中的 DNS, 也是 AD 域控的地址</p>  <p>Welcome to XenServer - Version 6.2.0 (#70446c) Copyright (c) 2013 Citrix Systems, Inc.</p> <p><b>Hostname and DNS Configuration</b></p> <p>Hostname Configuration</p> <p>Hostname: xenserver-test</p> <p>DNS Configuration</p> <p>DNS Server 1: 192.168.10.151 DNS Server 2: DNS Server 3:</p> <p>Ok Back</p> <p>&lt;Tab&gt;/&lt;Alt-Tab&gt; between elements : : &lt;F1&gt; Help screen</p>

步骤	操作
23.	<p>选择 Asia</p>  <p>Welcome to XenServer - Version 6.2.0 (#70446c) Copyright (c) 2013 Citrix Systems, Inc.</p> <p>Select Time Zone</p> <p>Please select the geographical area that your XenServer Host is in:</p> <ul style="list-style-type: none"> <li>Antarctica</li> <li>Arctic</li> <li>Asia</li> <li>Atlantic</li> <li>Australia</li> <li>Europe</li> <li>Indian</li> <li>Pacific</li> </ul> <p>Ok Back</p> <p>&lt;Tab&gt;/&lt;Alt-Tab&gt; between elements : : &lt;F1&gt; Help screen</p>
24.	<p>选择 Shanghai</p>  <p>Welcome to XenServer - Version 6.2.0 (#70446c) Copyright (c) 2013 Citrix Systems, Inc.</p> <p>Select Time Zone</p> <p>Please select the city or area that the managed host is in (press a letter to jump to that place in the list):</p> <ul style="list-style-type: none"> <li>Saigon</li> <li>Sakhalin</li> <li>Samarkand</li> <li>Seoul</li> <li>Shanghai</li> <li>Singapore</li> <li>Taipei</li> <li>Tashkent</li> </ul> <p>Ok Back</p> <p>&lt;Tab&gt;/&lt;Alt-Tab&gt; between elements : : &lt;F1&gt; Help screen</p>

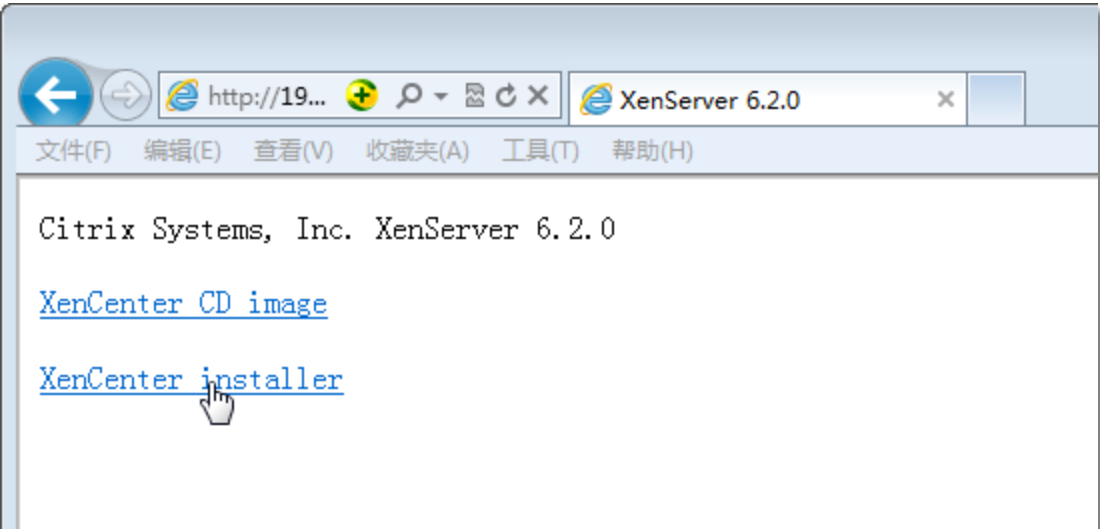

步骤	操作
25.	<p>选择 Manual time entry</p>  <p>Welcome to XenServer - Version 6.2.0 (#70446c) Copyright (c) 2013 Citrix Systems, Inc.</p> <p>System Time</p> <p>How should the local time be determined?</p> <p>(Note that if you choose to enter it manually, you will need to respond to a prompt at the end of the installation.)</p> <p>Using NTP Manual time entry</p> <p>Ok Back</p> <p>&lt;Tab&gt;/&lt;Alt-Tab&gt; between elements : : &lt;F1&gt; Help screen</p>
26.	<p>全部设置完成, Install XenServer</p>  <p>Welcome to XenServer - Version 6.2.0 (#70446c) Copyright (c) 2013 Citrix Systems, Inc.</p> <p>Confirm Installation</p> <p>We have collected all the information required to install XenServer.</p> <p>Please confirm you wish to proceed: all data on disk sda will be destroyed!</p> <p>Install XenServer Back</p> <p>&lt;Tab&gt;/&lt;Alt-Tab&gt; between elements : : &lt;F1&gt; Help screen</p>

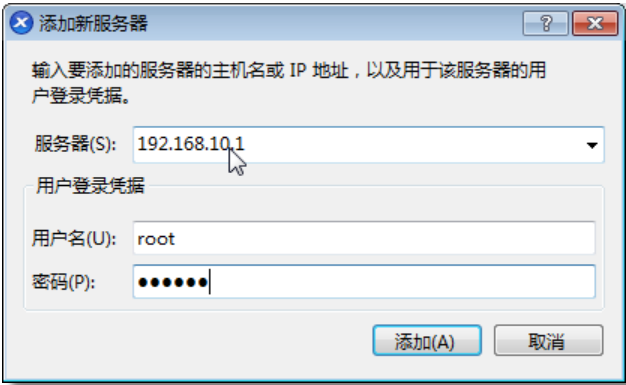
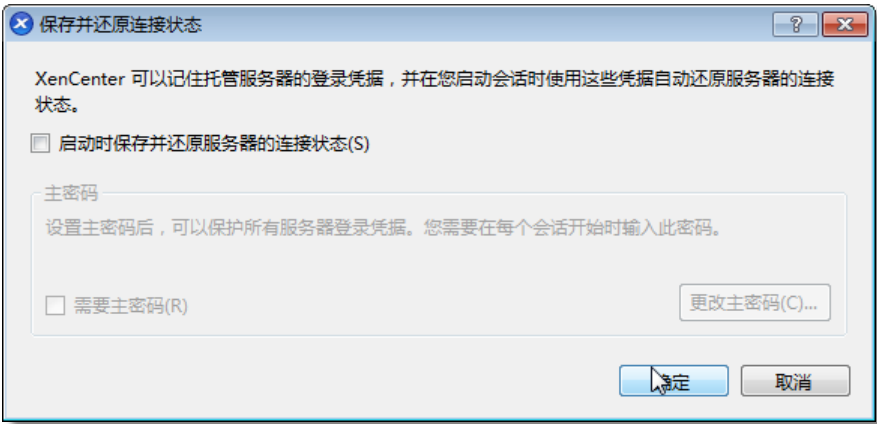
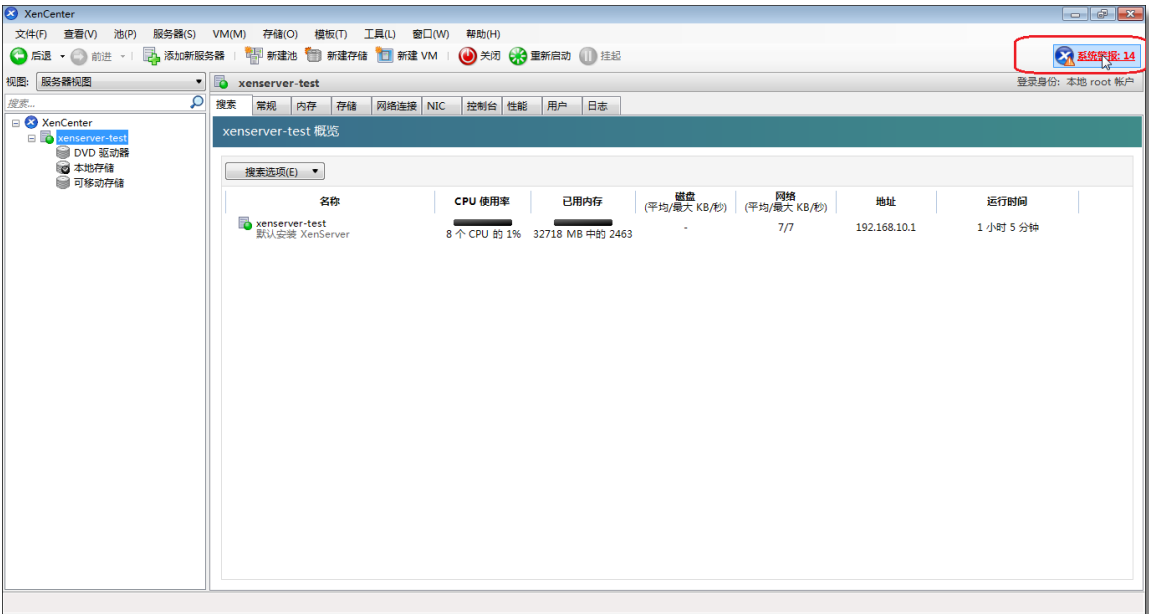
步骤	操作
27.	<p>安装接近尾声时，设置正确的时间</p>  <p>Working: Please wait...</p>
28.	<p>点击 OK</p>  <p>&lt;Tab&gt;/&lt;Alt-Tab&gt; between elements : &lt;F1&gt; Help screen</p>

步骤	操作
29.	<div><div>等待完成，重启。至此，XenServer 服务器安装完成</div><div><div>The system is going down NOW! Sending SIGTERM to all processes Sending SIGKILL to all processes Requesting system reboot</div></div></div>

## 3.2 XenServer 补丁的安装

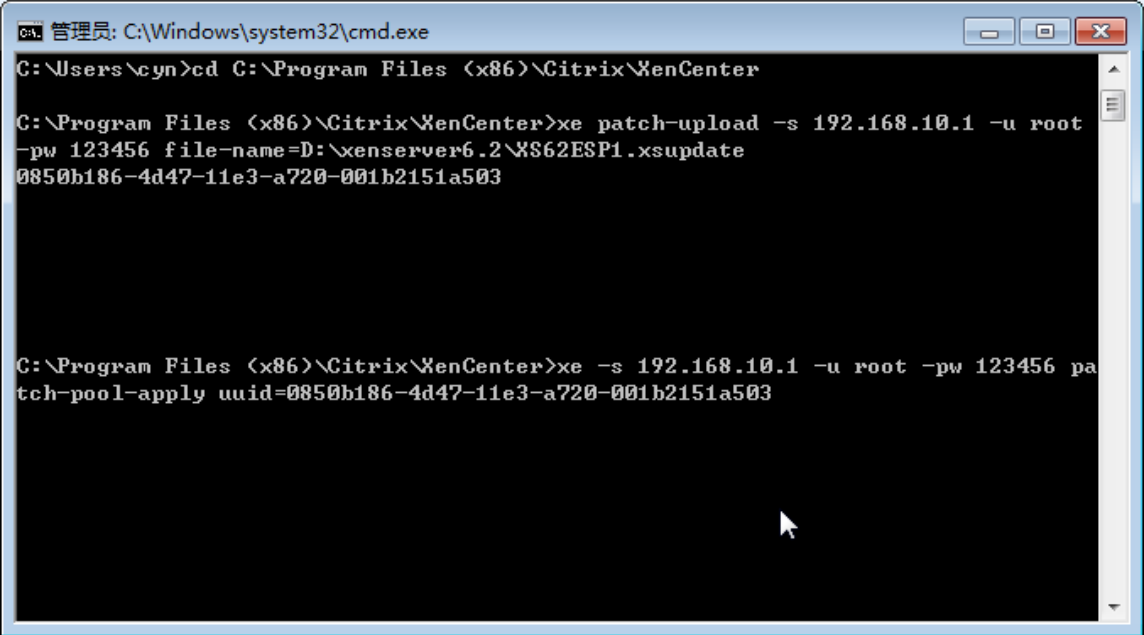
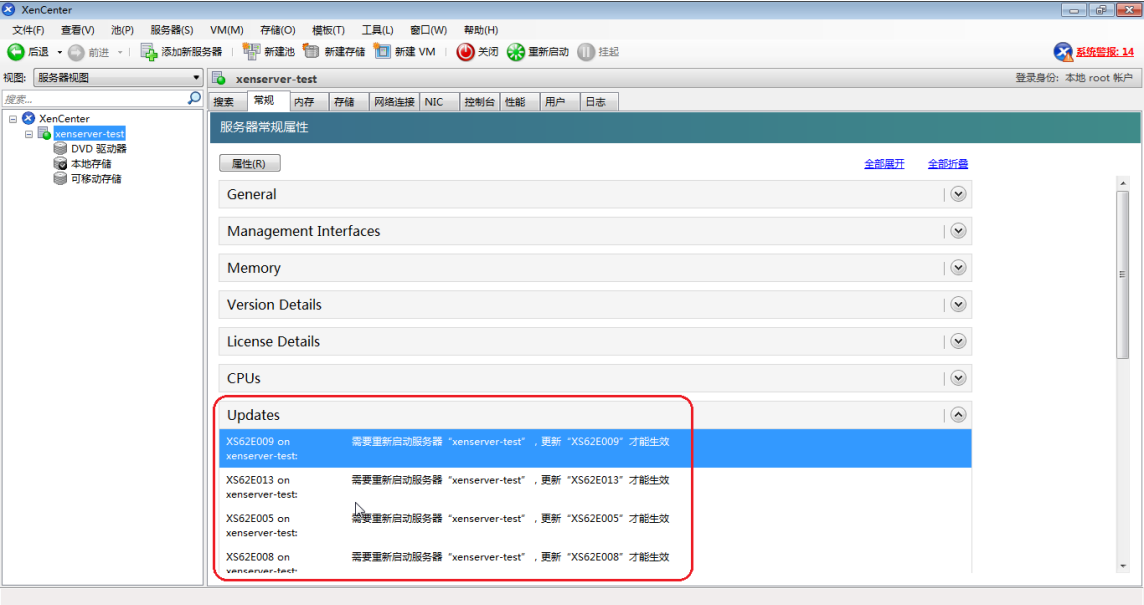
在完成了 XenServer 的安装以后，我们可以在任意一台 PC 上安装 XenCenter 来管理 XenServer。

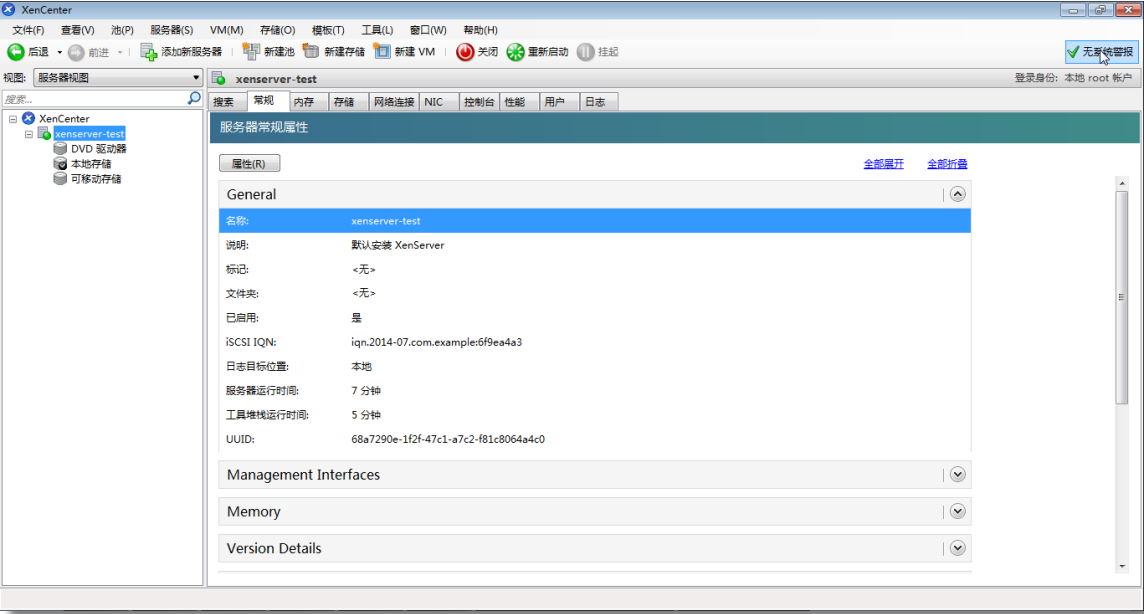
步骤	操作
1.	<p>XenCenter 中文版可以到 Citrix 的 Sharefile 下载（vGPU 项目不适用此版本 XenCenter）  <a href="https://citrix.sharefile.com/download.aspx?id=af9ba826d0c844c3">https://citrix.sharefile.com/download.aspx?id=af9ba826d0c844c3</a>            或者直接输入 <a href="http://192.168.10.1/">http://192.168.10.1/</a> 下载 XenCenter installer（英文版）</p> 
2.	<p>运行 msi 文件，安装 XenCenter，过程略。</p>
3.	<p>打开 XenCenter，点击“添加服务器”</p> 

步骤	操作
4.	<p>输入服务器地址，填写用户名，root，和密码</p> 
5.	<p>点击确定</p> 
6.	<p>如果用来管理 XenServer 的 PC 可以连接 internet，那么在 XenCenter 启动后，XenCenter 会自动连接 Internet 查找更新。在 XenCenter 的右上角，点击“系统警报”</p> 

步骤	操作
7.	<p>右键点击 XS62ESP1，前往 Web 页面</p> <p>The screenshot shows the '系统警报' (System Alerts) window. At the top, there's a header with a question mark and a close button. Below it, a message states: '系统警报是来自所连服务器的通知，可以使用以下过滤器进行查看。可以通过警报操作按钮解除警报、解决警报或查看各警报' (System alerts are notifications from connected servers, which can be viewed using the following filters. You can remove alerts, resolve alerts, or view each alert through alert operation buttons). Below this message are several filter buttons: '过滤服务器(S)' (Filter servers), '过滤日期(F)' (Filter date), '过滤严重性(V)' (Filter severity), '刷新(R)' (Refresh), '全部导出(E)' (Export all), and '全部取消(A)' (Cancel all). The main area is a table with three columns: '应用对象' (Application object), '详细信息' (Detailed information), and '日期' (Date). The table lists several alerts for 'xenserver-test'. The alert for 'XS62ESP1' is selected, and a context menu is open over it. The context menu has three options: '前往 Web 页面(G)...' (Go to Web page(G)...), '取消' (Cancel), and '复制(C)' (Copy). At the bottom of the window, there's a '警报操作:' (Alert action:) section with buttons for '前往 Web 页面(G)...' (Go to Web page(G)...), '有关此警报的帮助...' (Help for this alert...), and '取消(D)' (Cancel(D)). A '关闭(C)' (Close(C)) button is at the bottom right.</p>

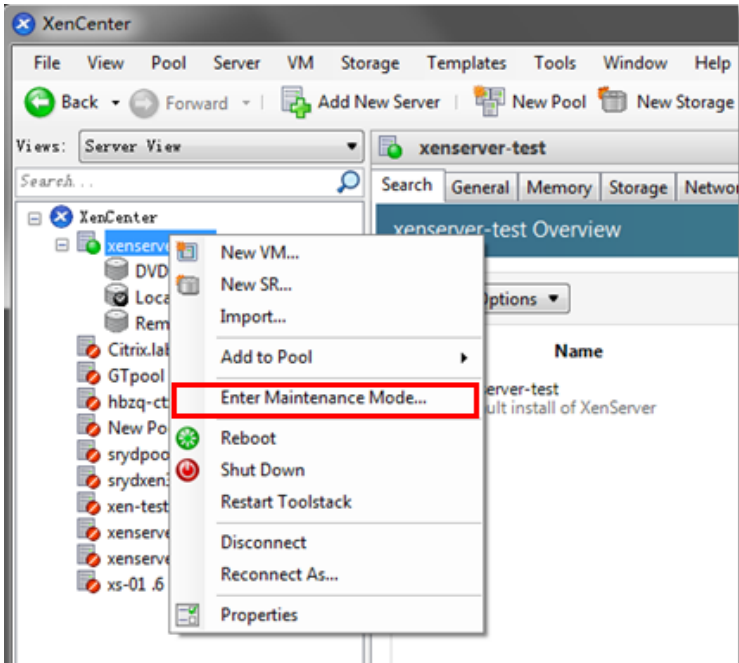
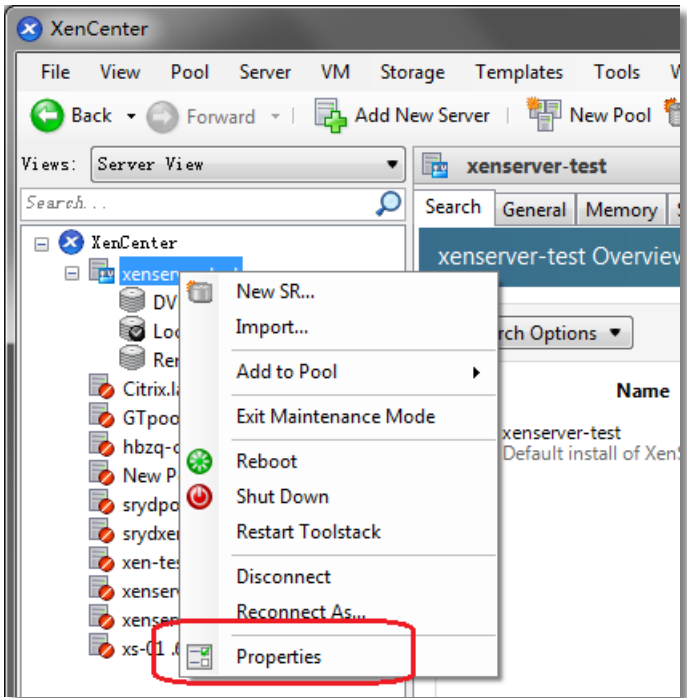
步骤	操作								
8.	<div>下载补丁</div> <div></div> <div>下载完成后大小大约 200mb，放到 d:\XenServer6.2 目录</div> <div><table><tr><th>名称</th><th>修改日期</th><th>类型</th><th>大小</th></tr><tr><td> XS62ESP1.xsupdate</td><td>2013-12-10 12:58</td><td>XenServer Upda...</td><td>213,477 KB</td></tr></table></div>	名称	修改日期	类型	大小	 XS62ESP1.xsupdate	2013-12-10 12:58	XenServer Upda...	213,477 KB
名称	修改日期	类型	大小						
 XS62ESP1.xsupdate	2013-12-10 12:58	XenServer Upda...	213,477 KB						
9.	<div>使用命令：xe patch-upload -s 192.168.10.1 -u root -pw 123456 file-name=D:\XenServer6.2\XS62ESP1.xsupdate</div> <div>注：</div> <div>192.168.10.1      #XenServer 的 IP 地址</div> <div>root                #XenServer 的登录用户名</div> <div>123456             #XenServer 的登录密码</div> <div>D:\XenServer6.2\XS62ESP1.xsupdate      #补丁在上传计算机上的路径</div> <div></div>								

步骤	操作
10.	<p>上传完成后可以获得一串 UUID 号，如：0850b186-4d47-11e3-a720-001b2151a503 通过命令行打补丁 xe -s 192.168.10.1 -u root -pw 123456 patch-pool-apply uuid=0850b186-4d47-11e3-a720-001b2151a503</p>  <p>关于通过命令行为 XenServer 安装补丁，请参考 <a href="http://support.citrix.com/article/CTX132791">http://support.citrix.com/article/CTX132791</a></p>
11.	<p>回到 XenCenter，可以看到补丁已经安装完毕，需要重启使补丁生效</p> 

步骤	操作
12.	<div><p>重启后，看到右上角没有告警。如还有其他补丁请参考以上步骤安装补丁，也可等后续导入 lic 后使用 XenCenter 直接来安装补丁。</p><p>The screenshot shows the XenCenter application window. The title bar reads 'XenCenter'. The menu bar includes '文件(F)', '查看(V)', '池(P)', '服务器(S)', 'VM(M)', '存储(O)', '模板(T)', '工具(L)', '窗口(W)', and '帮助(H)'. The toolbar contains icons for '后退', '前进', '添加新服务器', '新建池', '新建存储', '新建 VM', '关闭', '重新启动', and '挂起'. The status bar on the right shows '无警告' (No warnings) and '登录身份: 本地 root 帐户' (Login identity: local root account). The left sidebar shows a tree view with 'XenCenter' as the root, containing 'xenserver-test', 'DVD 驱动器', '本地存储', and '可移动存储'. The main content area is titled '服务器常规属性' (Server General Properties) and has tabs for '常规' (General), '内存' (Memory), '存储' (Storage), '网络连接' (Network), 'NIC', '控制台' (Console), '性能' (Performance), '用户' (Users), and '日志' (Logs). The 'General' tab is active, showing the following details: Name: xenserver-test, Description: 默认安装 XenServer (Default installation of XenServer), Label: &lt;无&gt; (None), File path: &lt;无&gt; (None), Status: 是 (Yes), iSCSI IQN: iqn.2014-07.com.example:6f9ea4a3, Log target location: 本地 (Local), Server runtime: 7 分钟 (7 minutes), Toolstack runtime: 5 分钟 (5 minutes), and UUID: 68a7290e-1f2f-47c1-a7c2-f81c8064a4c0. Below the details are expandable sections for 'Management Interfaces', 'Memory', and 'Version Details'.</p></div>

至此，XenServer补丁安装及优化完成。

### 3.3 XenServer 启用多路径支持

步骤	操作
1.	<p>在图形界面启用 DMP 多路径支持 进入维护模式（Enter Maintenance Mode）</p>  <p>The screenshot shows the XenCenter application window. The 'Server View' is selected. In the left-hand tree, 'xenserver-test' is selected. A right-click context menu is open, and the option 'Enter Maintenance Mode...' is highlighted with a red rectangle. Other options in the menu include 'New VM...', 'New SR...', 'Import...', 'Add to Pool', 'Reboot', 'Shut Down', 'Restart Toolstack', 'Disconnect', 'Reconnect As...', and 'Properties'.</p>
2.	<p>点属性</p>  <p>The screenshot shows the same XenCenter application window. The context menu for 'xenserver-test' is still open, but now the 'Properties' option at the bottom is highlighted with a red rectangle. The 'Exit Maintenance Mode' option is now visible in the menu, indicating that the server is in maintenance mode.</p>

步骤	操作
3.	<p>找到如下项，勾选 “Enable multipathing on this server” 完成后会重新扫描存储。在创建虚拟机之前记得退出维护模式！！</p>
4.	<p>备注：如果是 LSI 的存储，还需要增加在命令行下配置启用多路径支持 点击控制台，进入命令行控制台</p> <p>键入命令</p> <pre># /opt/xensource/libexec/mpp-rdac --enable</pre> <pre>[root@xenserver-test /]# /opt/xensource/libexec/mpp-rdac --enable</pre> <pre>[root@xenserver-test /]# _</pre> <p>注意</p> <p>mpp-rdac --enable 是启用 MPP 多路径，这种多路径只是对 LSI 的存储起作用，所以只有在 LSI 存储的情况下才需要同时做两种配置。</p>

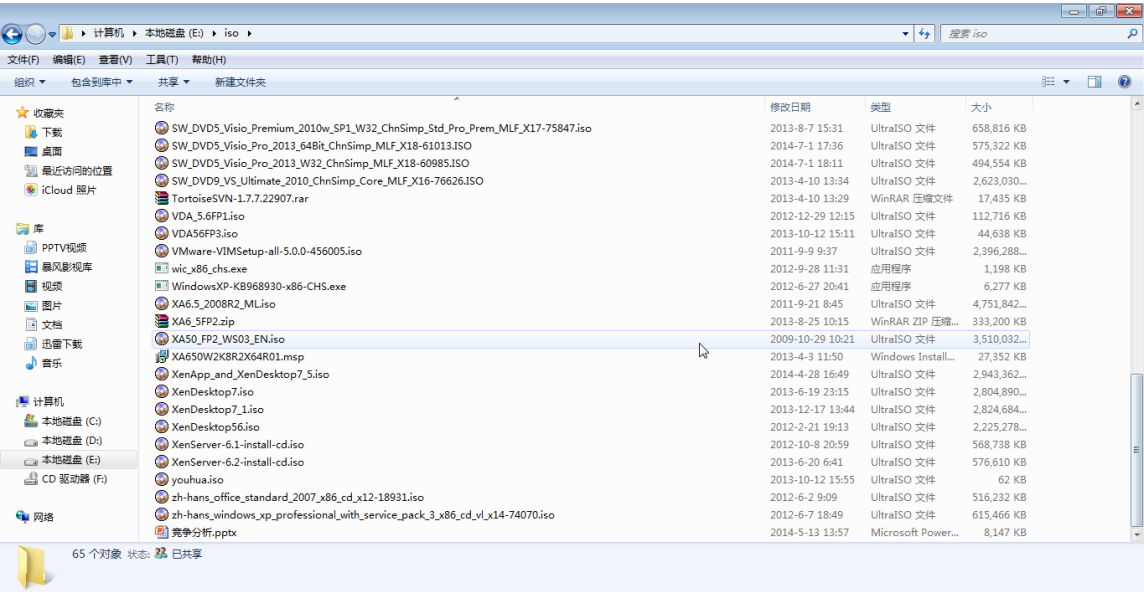
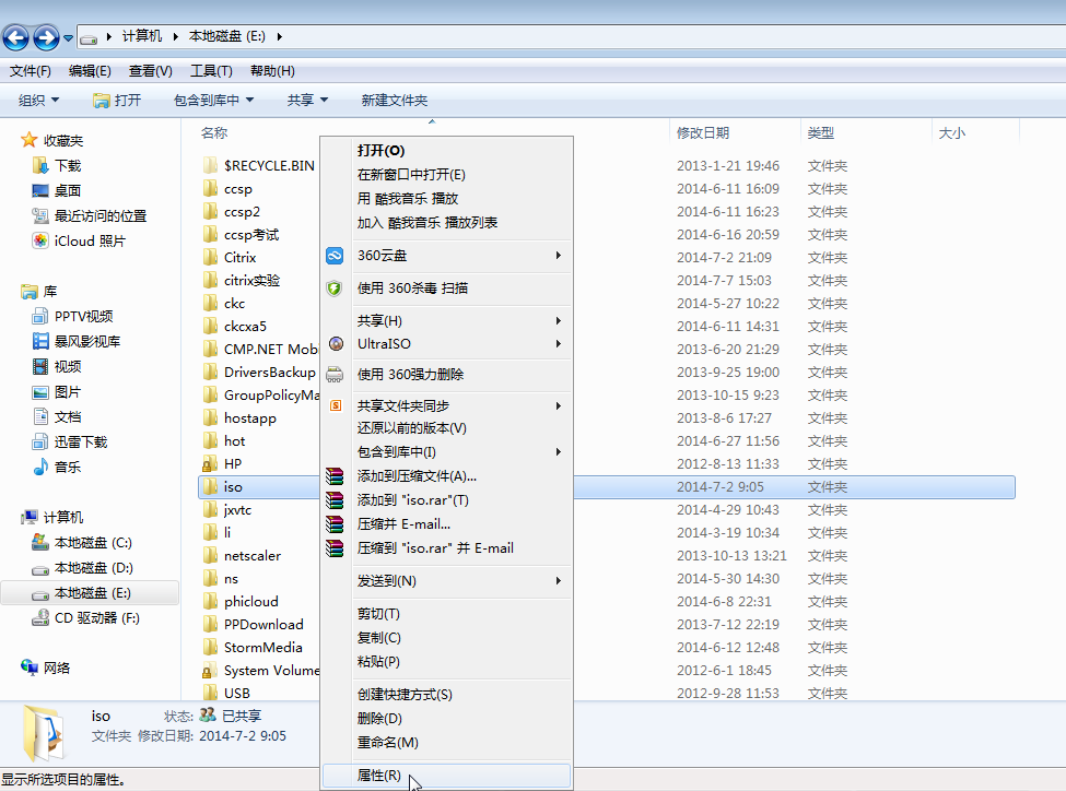
## 3.4 XenServer dom0 优化

Dom0 是用于控制和管理 XenServer，在某些情况下，XenServer 上虚拟机负载过大时，有可能导致 Dom0 出问题，所以，需要增加 Dom0 的运算性能，这时候可以增加 Dom0 vCPUs 数量来提高 XenServer 稳定性。

步骤	操作
1.	<p>登录 XenServer 控制台，使用 <code>/usr/lib/xen/bin/host-cpu-tune advise</code> 查看 XenServer 推荐的 Dom0 的 vCPU</p> <pre>[root@xenserver-test ~]# /usr/lib/xen/bin/host-cpu-tune advise Citrix recommends assigning 4 vCPUs to dom0, not using pinning. This can be achieved by running:  /usr/lib/xen/bin/host-cpu-tune set 4 nopin  [root@xenserver-test ~]#</pre>
2.	<p>本 PoC 中，命令提示推荐使用 4 个 VCPU。</p> <pre>[root@xenserver-test ~]# /usr/lib/xen/bin/host-cpu-tune advise Citrix recommends assigning 4 vCPUs to dom0, not using pinning. This can be achieved by running:  /usr/lib/xen/bin/host-cpu-tune set 4 nopin  [root@xenserver-test ~]#</pre>
3.	<p>使用 <code>/usr/lib/xen/bin/host-cpu-tune set 4 nopin</code> 命令设置 4 个 vCPU 详细请参考 <a href="http://support.citrix.com/article/CTX139714">http://support.citrix.com/article/CTX139714</a></p> <pre>[root@xenserver-test ~]# /usr/lib/xen/bin/host-cpu-tune set 4 nopin Configuration successfully applied. Reboot this host NOW. [root@xenserver-test ~]#</pre>
4.	<p>完成后重启服务器 输入 <code>reboot</code> 重启</p> <pre>[root@xenserver-test ~]# reboot</pre>

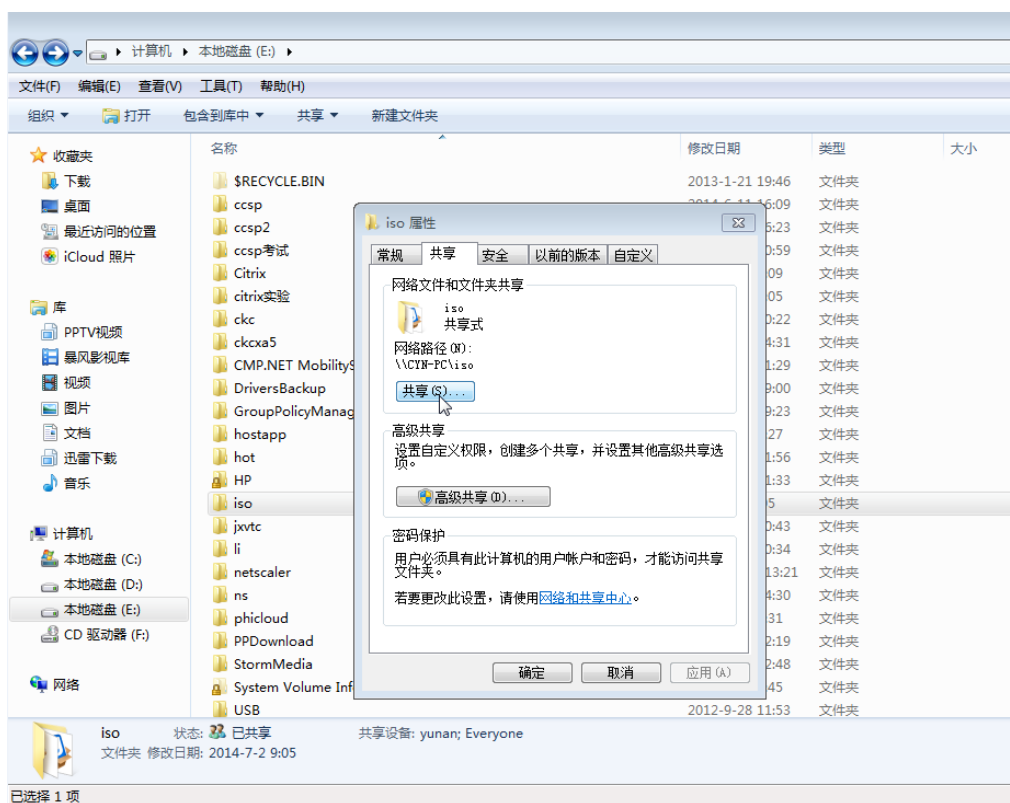
## 第4章 基本操作系统模板的制作

### 4.1 ISO Library 挂载

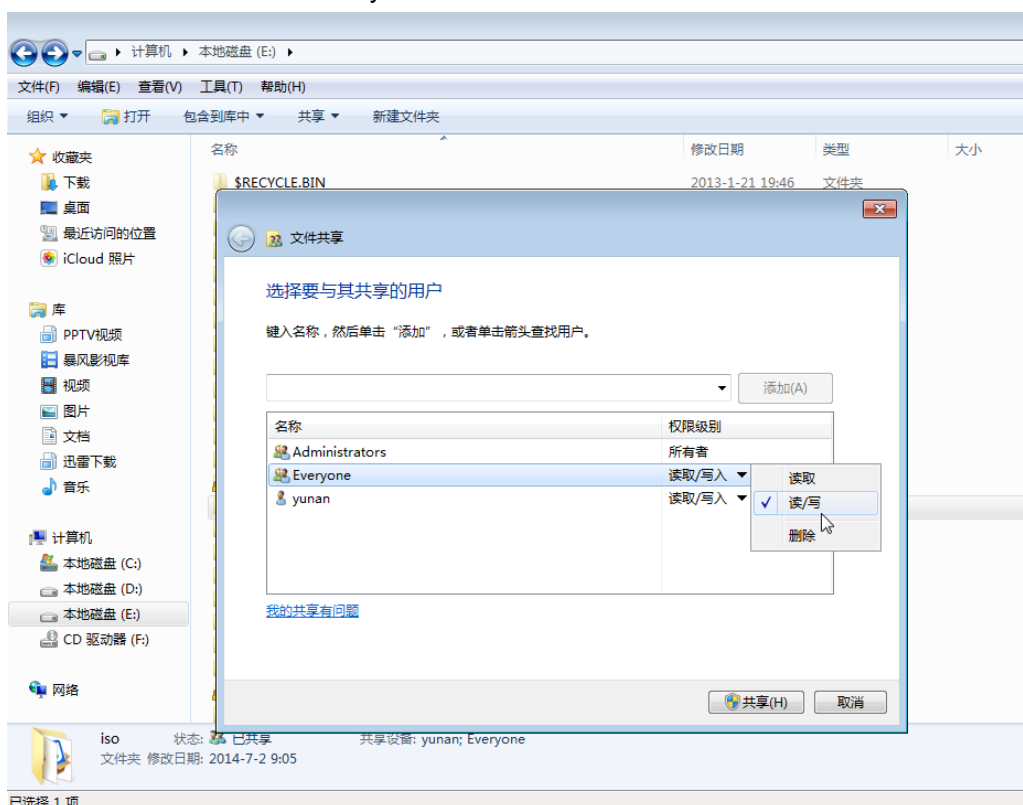
步骤	操作
5.	<p>将需要使用的镜像放入文件夹中</p> 
6.	<p>右键保存镜像文件夹，点击属性</p> 

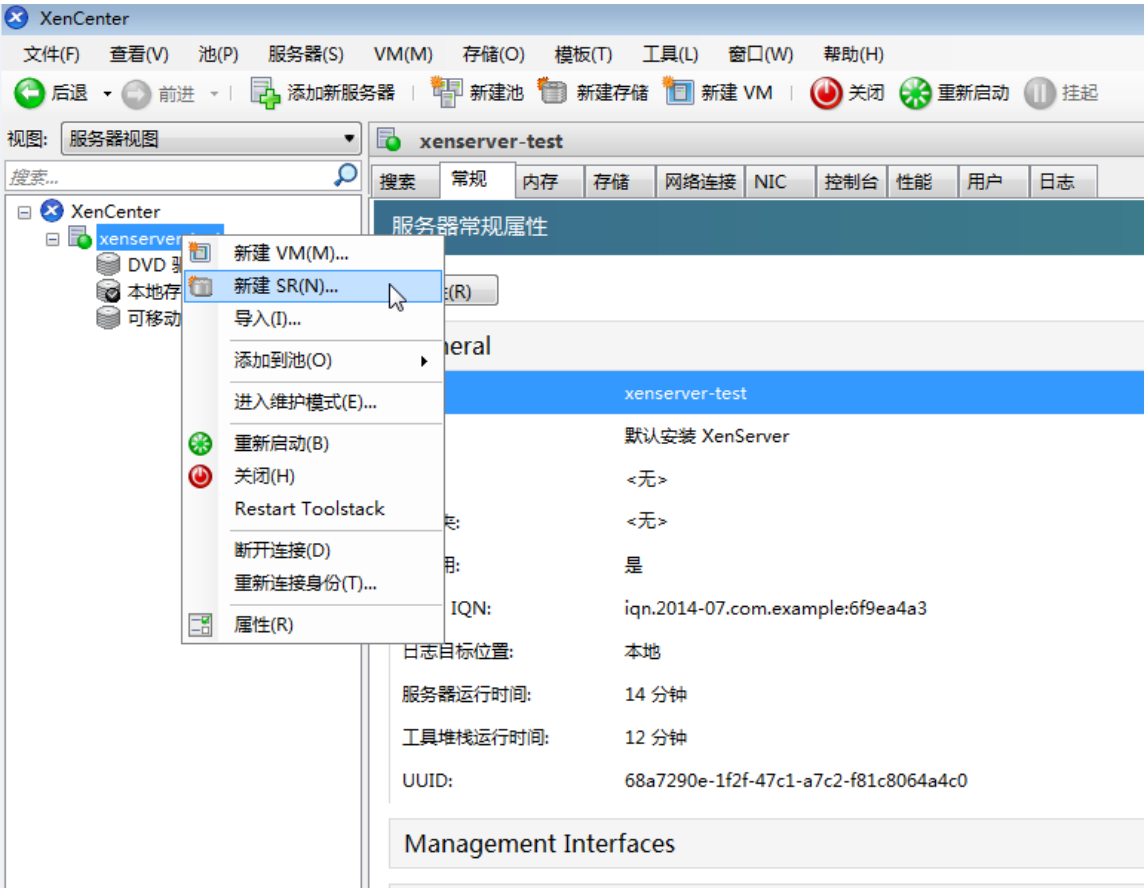
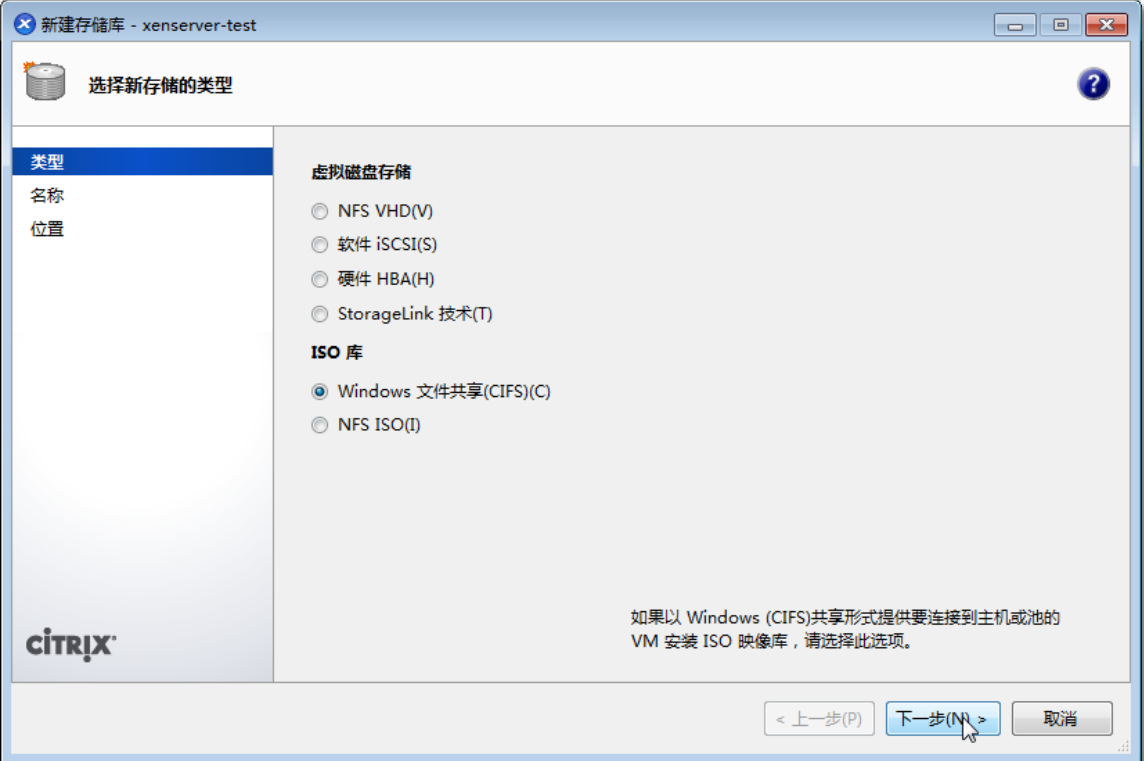
步骤 操作

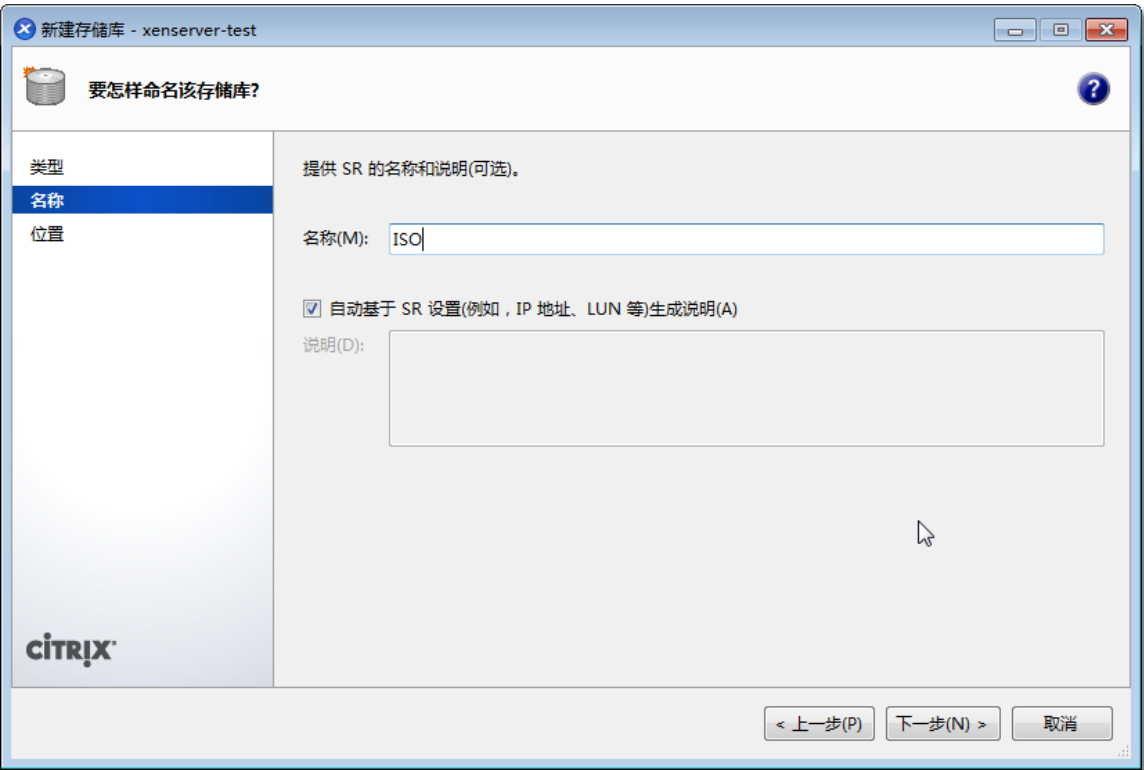
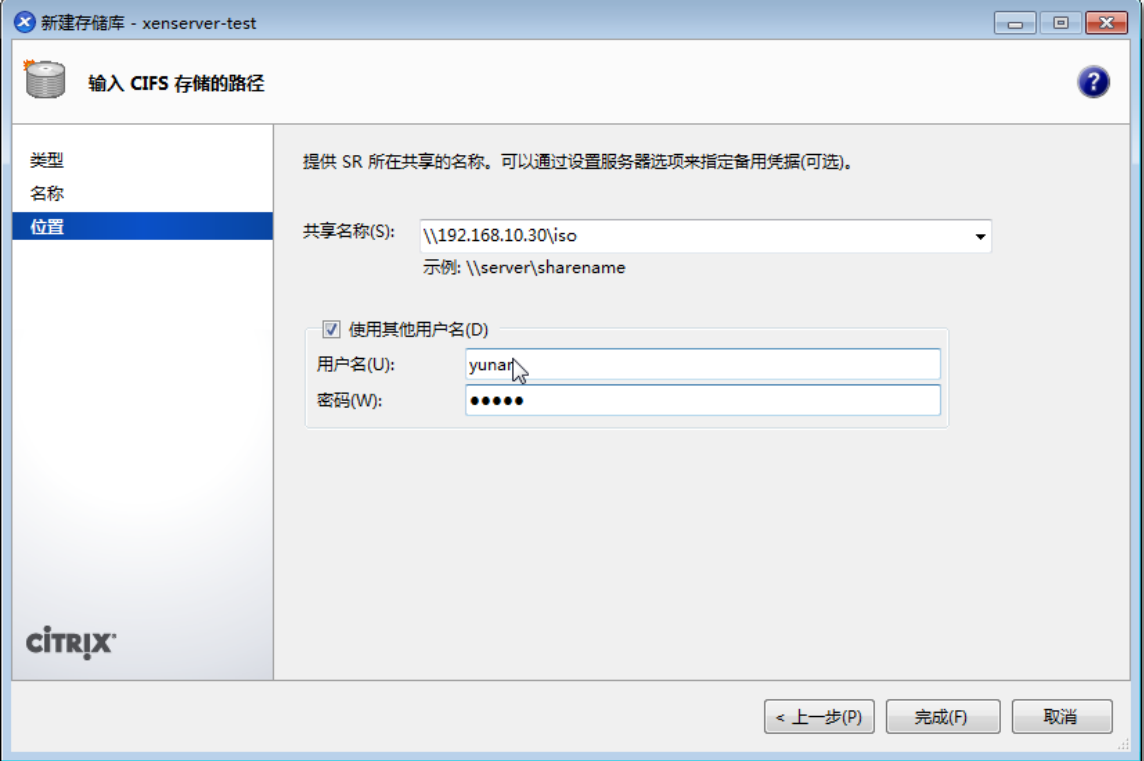
7. 在“共享”选项卡中，点击共享按钮



8. 在文件共享窗口中键入“Everyone”，并在权限级别中选择“读取/写入”



步骤	操作
9.	<p>在 XenCenter 中右键 XenServer-test，点击“新建 SR”</p>  <p>The screenshot shows the XenCenter application window. The 'xenserver-test' server is selected in the left-hand tree view. A right-click context menu is open, and the option '新建 SR(N)...' (New Storage Repository) is highlighted. The main pane shows the '常规' (General) tab for the selected server, displaying details like '默认安装 XenServer' (Default installation XenServer), '日志目标位置: 本地' (Log target location: Local), and '服务器运行时间: 14 分钟' (Server uptime: 14 minutes).</p>
10.	<p>选择“Windows 文件共享 (CIFS)”，点击下一步</p>  <p>The screenshot shows the '新建存储库 - xenserver-test' (New Storage Repository - xenserver-test) dialog box. The '类型' (Type) tab is selected. Under '虚拟磁盘存储' (Virtual disk storage), several options are listed: NFS VHD(V), 软件 iSCSI(S), 硬件 HBA(H), and StorageLink 技术(T). Under 'ISO 库' (ISO library), 'Windows 文件共享(CIFS)(C)' is selected with a radio button, and 'NFS ISO(I)' is also listed. At the bottom, there is a note: '如果以 Windows (CIFS)共享形式提供要连接到主机或池的 VM 安装 ISO 映像库，请选择此选项。' (If the VM installation ISO image library is provided in Windows (CIFS) share format to be connected to the host or pool, select this option.). The '下一步(N) &gt;' (Next) button is highlighted.</p>

步骤	操作
11.	<p>编辑存储库名称，点击下一步</p> 
12.	<p>共享名称中输入共享文件夹路径，并输入镜像文件所在计算机的用户名和密码，点击完成</p> 

步骤

13.

操作

在 XenCenter 中确认存储库已经挂载完成

4.2 操作系统模版制作流程

步骤

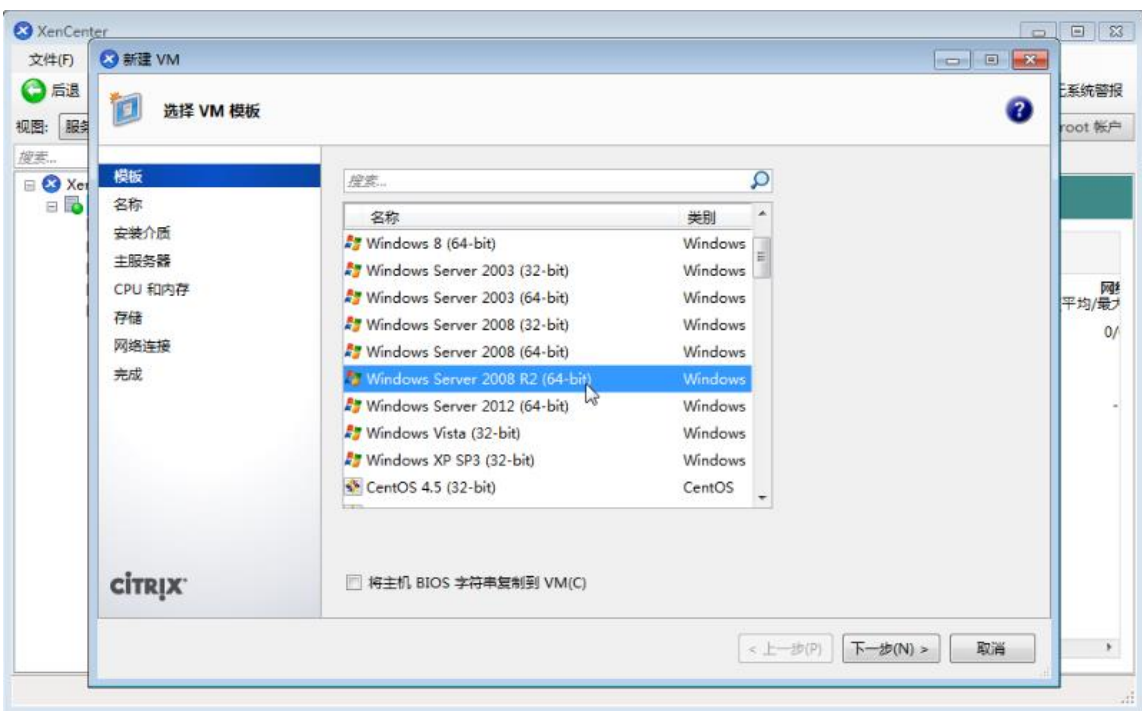
1.

操作

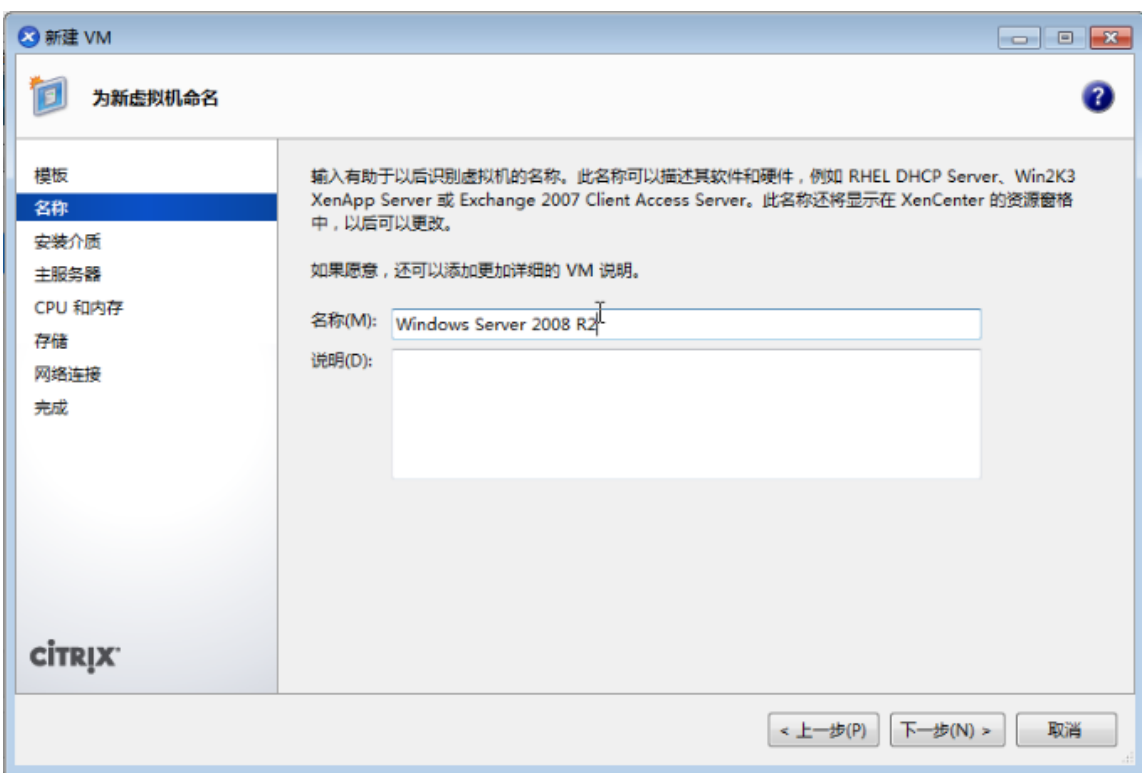
在 XenCenter 中右键“XenServer-test”选择“新建 VM”

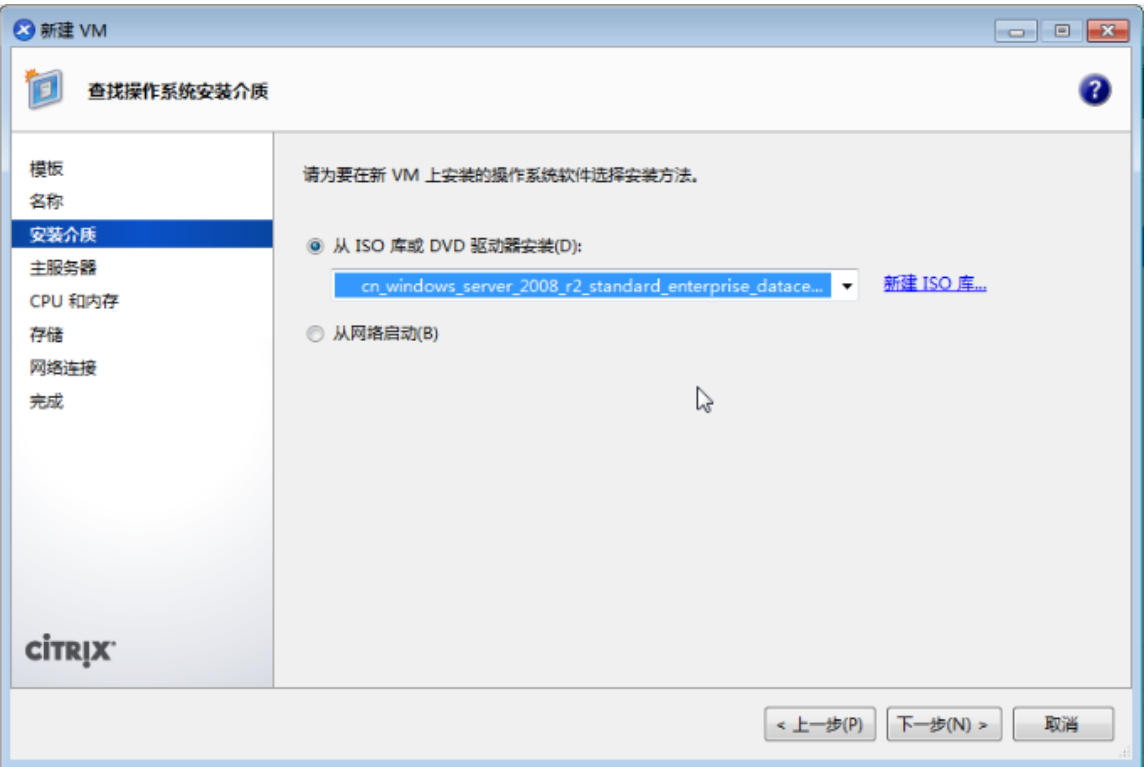
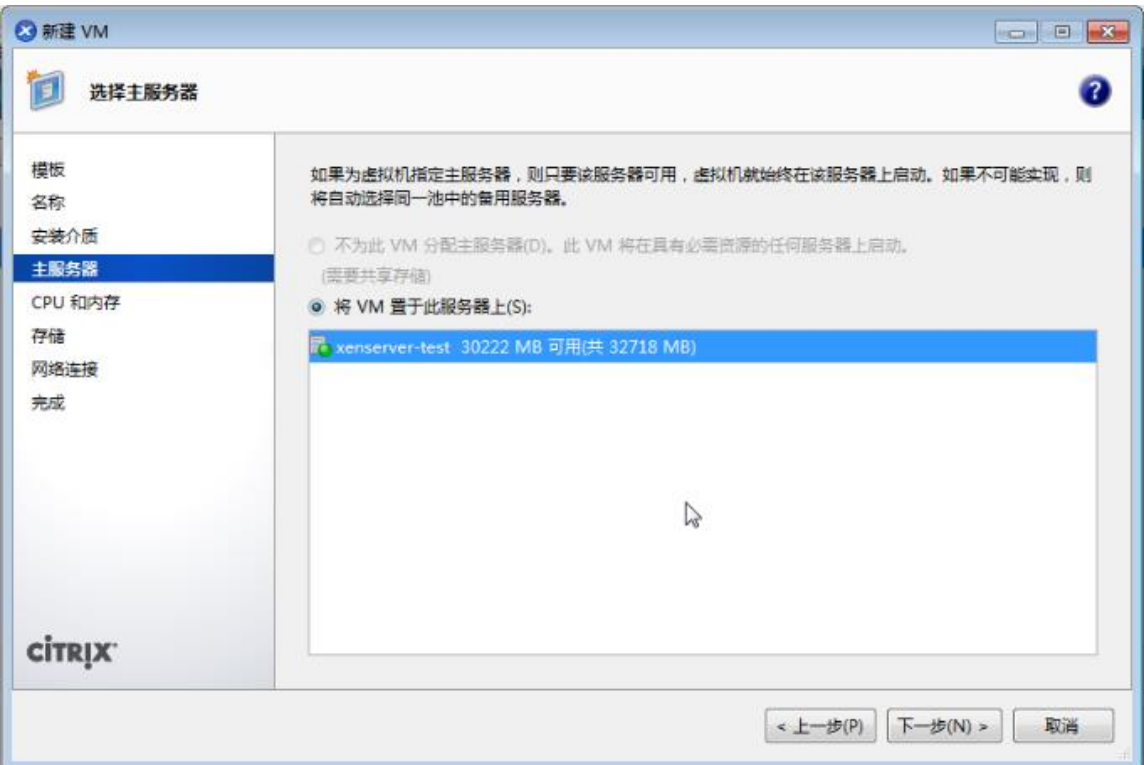
步骤 | 操作

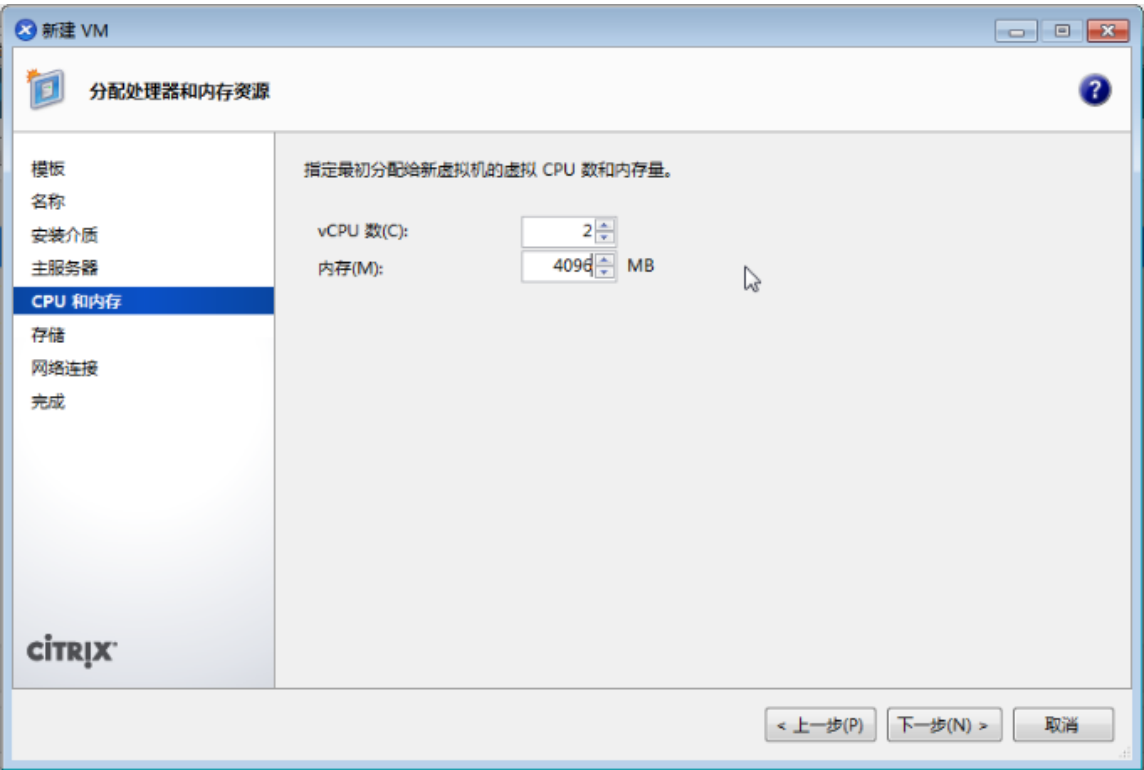
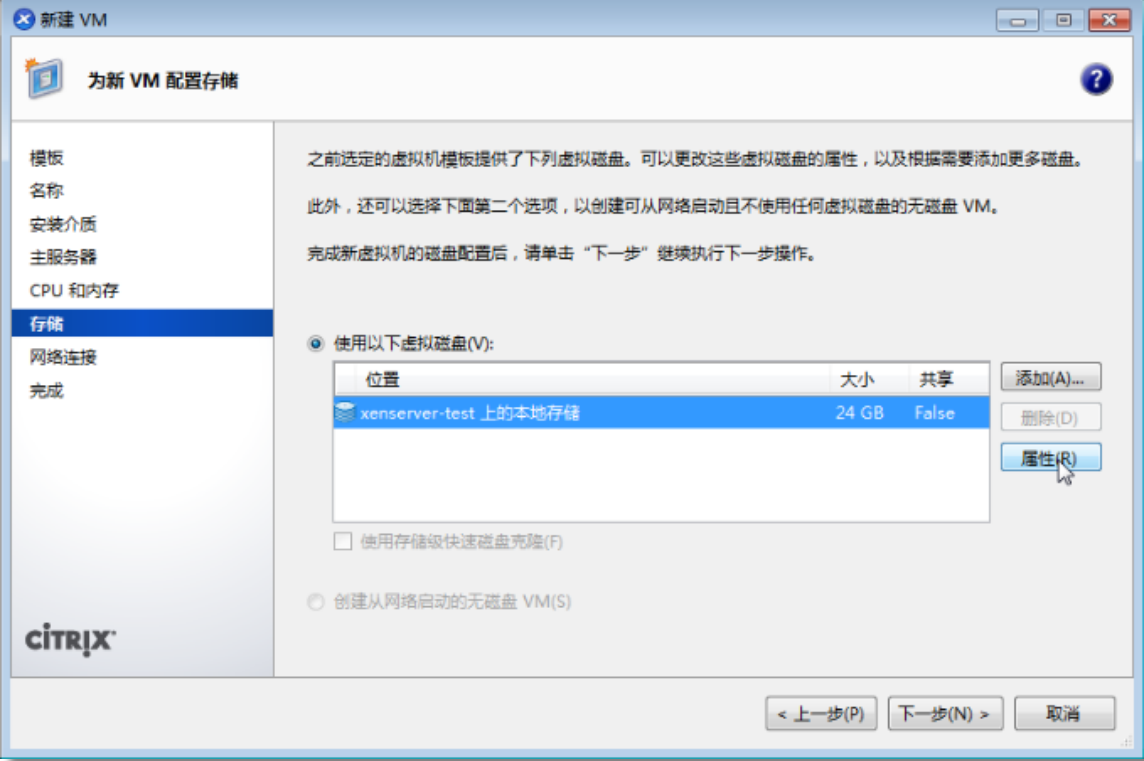
2. 选择 Windows Server 2008 R2 (64-bit)，点击下一步

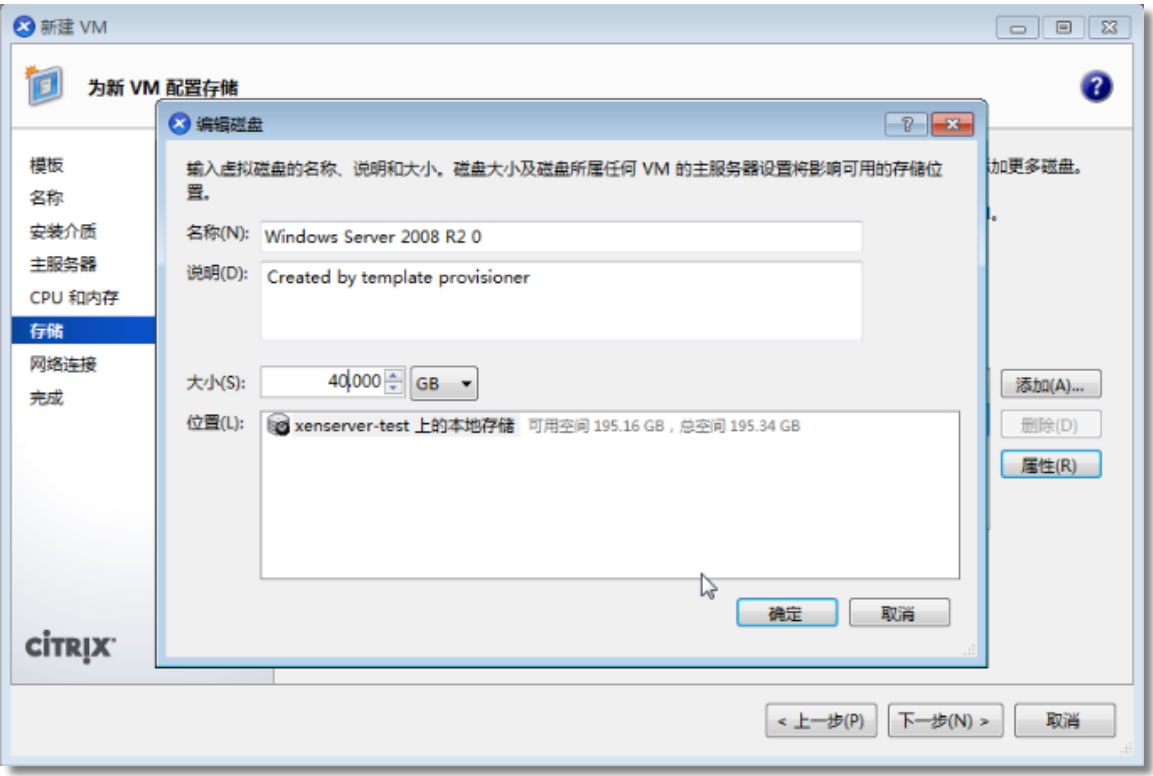
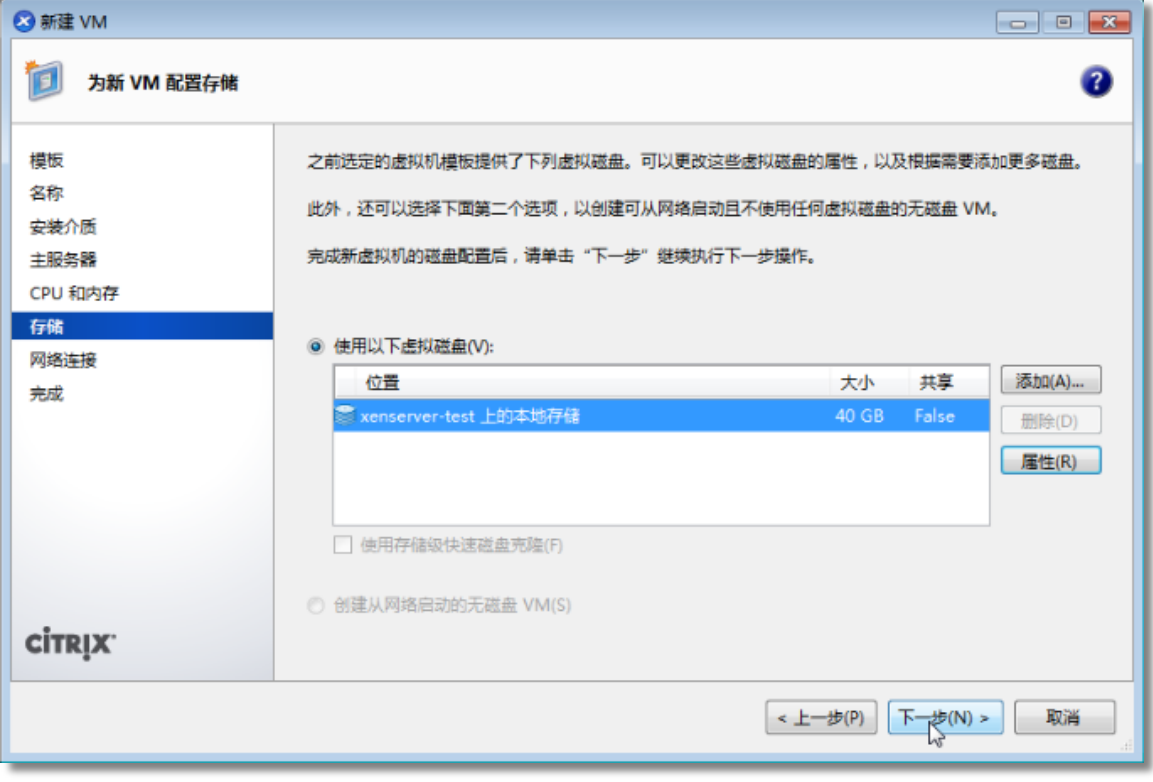


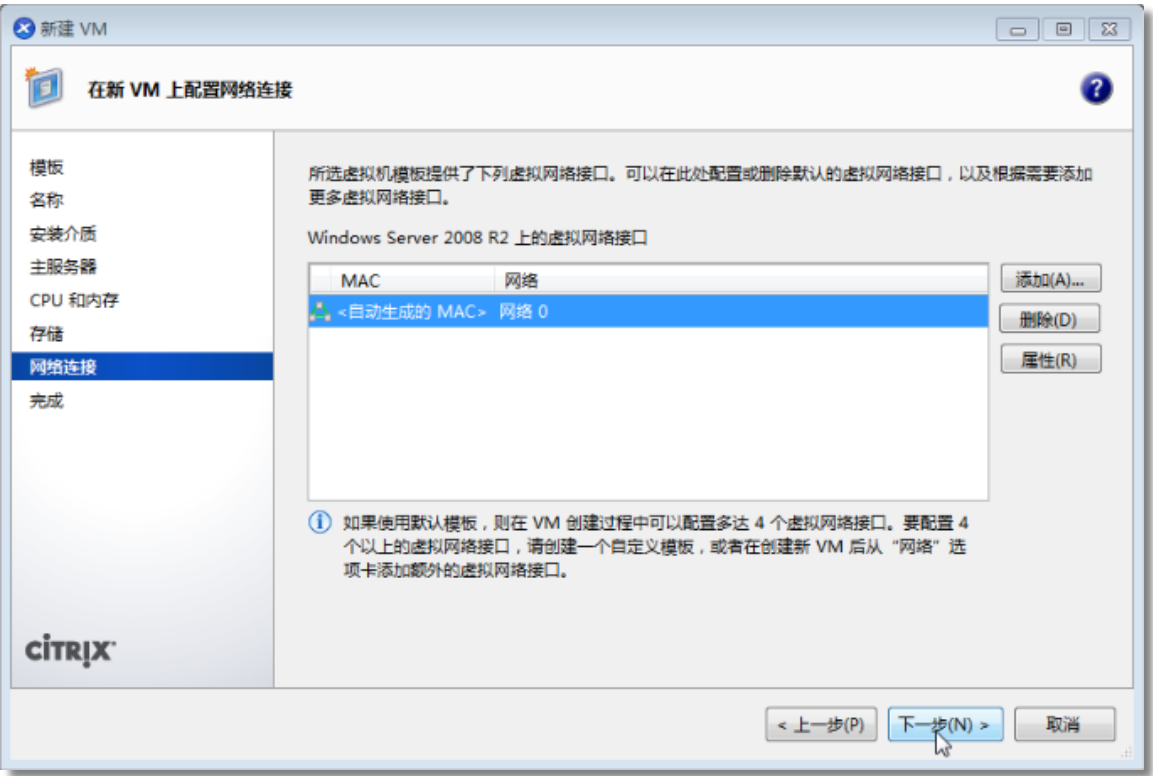
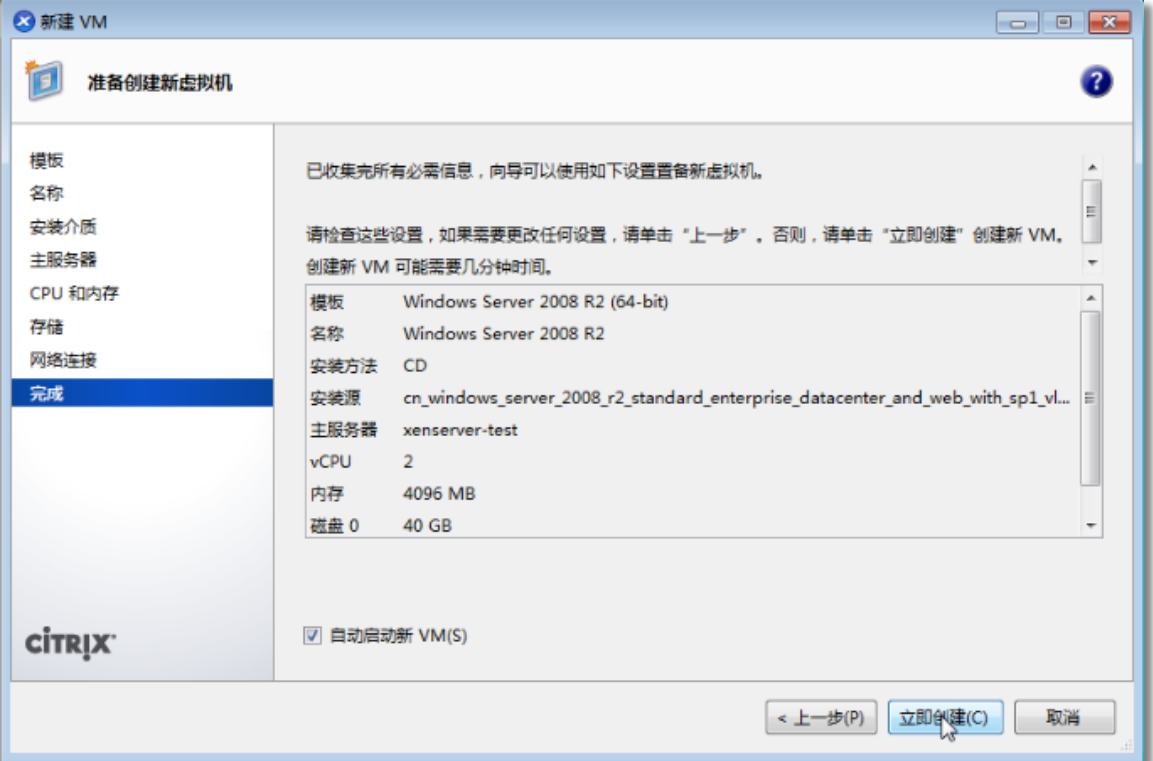
3. 在名称中输入“Windows Server 2008 R2”，点击下一步

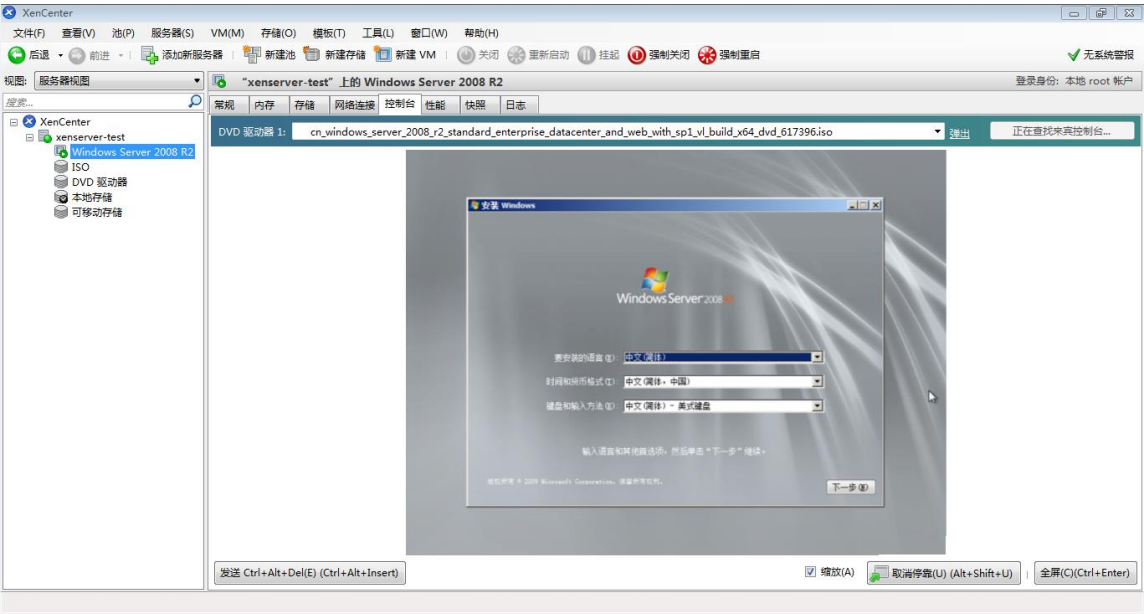
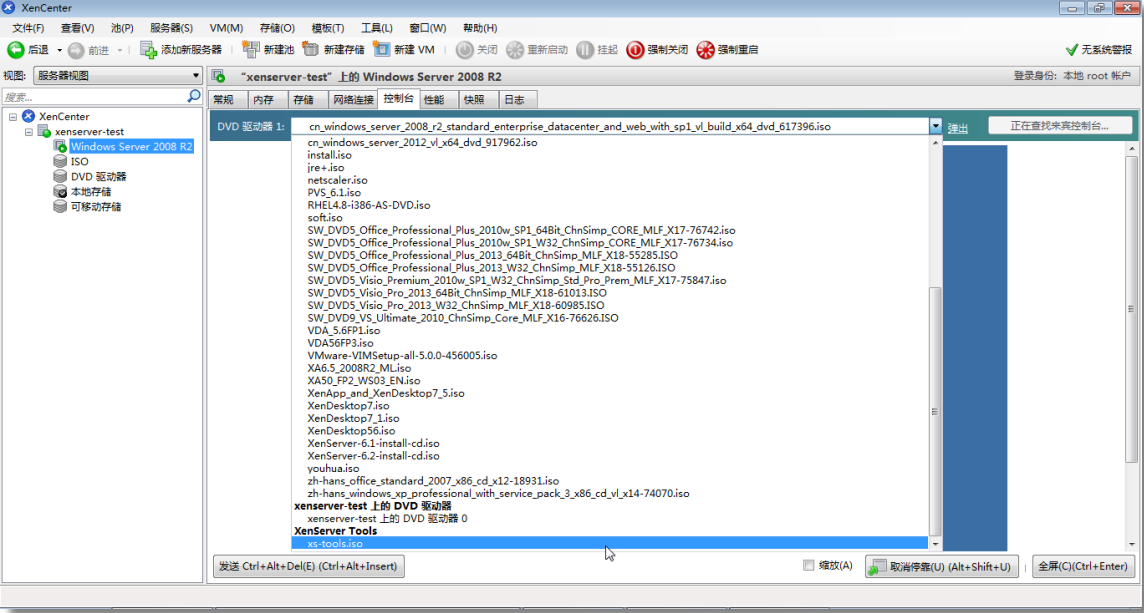


步骤	操作
4.	<p>选择“从 ISO 库或 DVD 驱动器安装”，在下拉菜单中选择 Windows 2008 R2 安装镜像，点击下一步</p> 
5.	<p>选择“将 VM 置于此服务器上”，选择“XenServer-test”，点击下一步</p> 

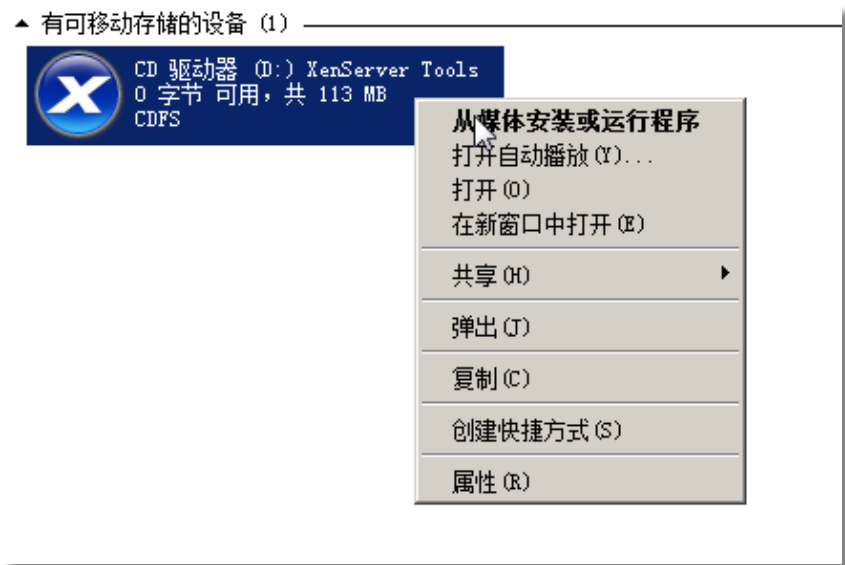
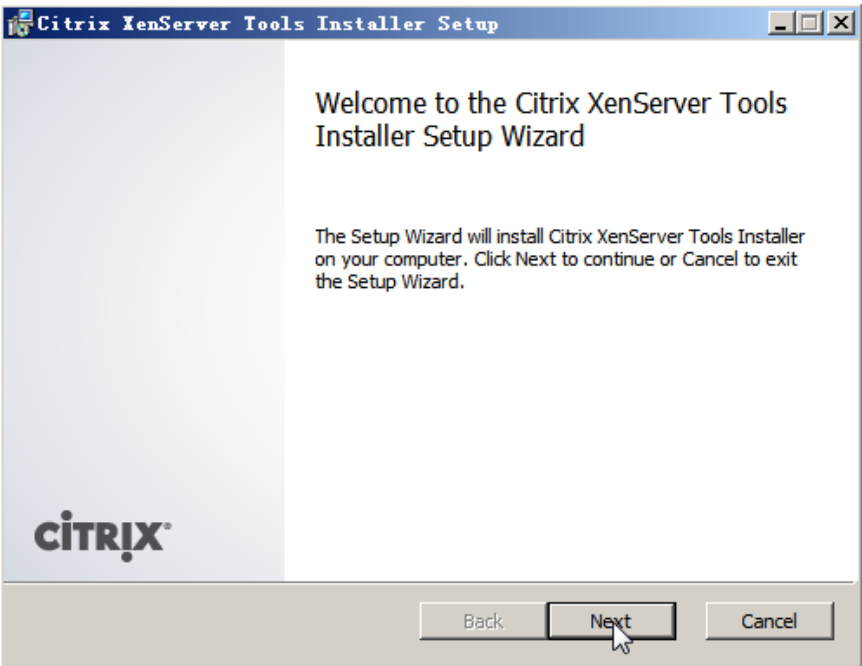
步骤	操作
6.	<p>设置 vCPU 数量和内存大小，点击下一步</p> 
7.	<p>点击“属性”</p> 

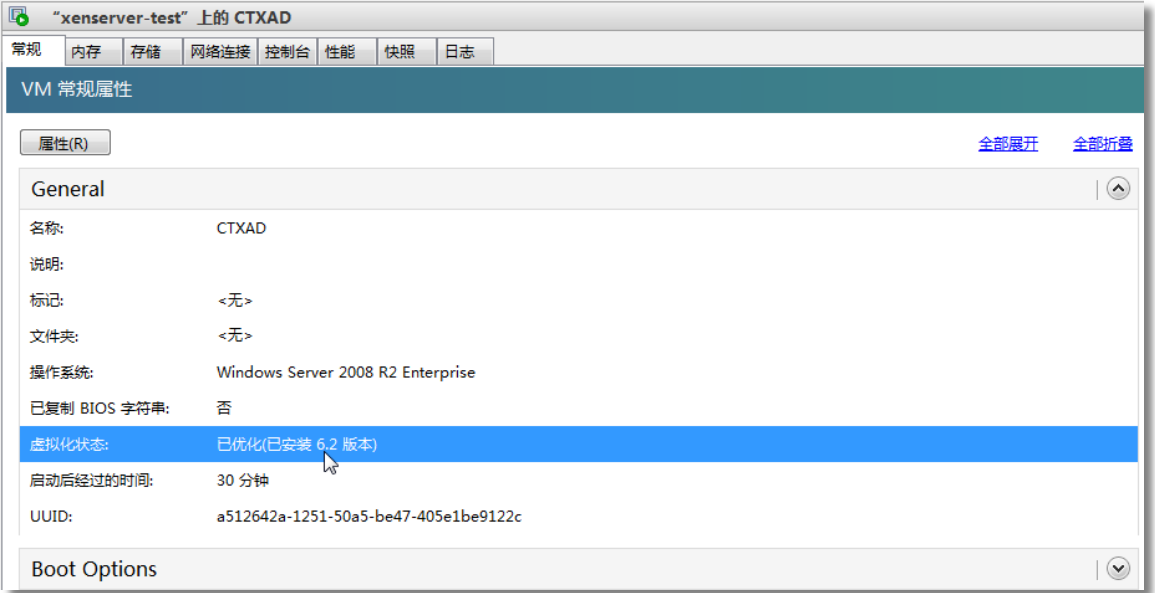
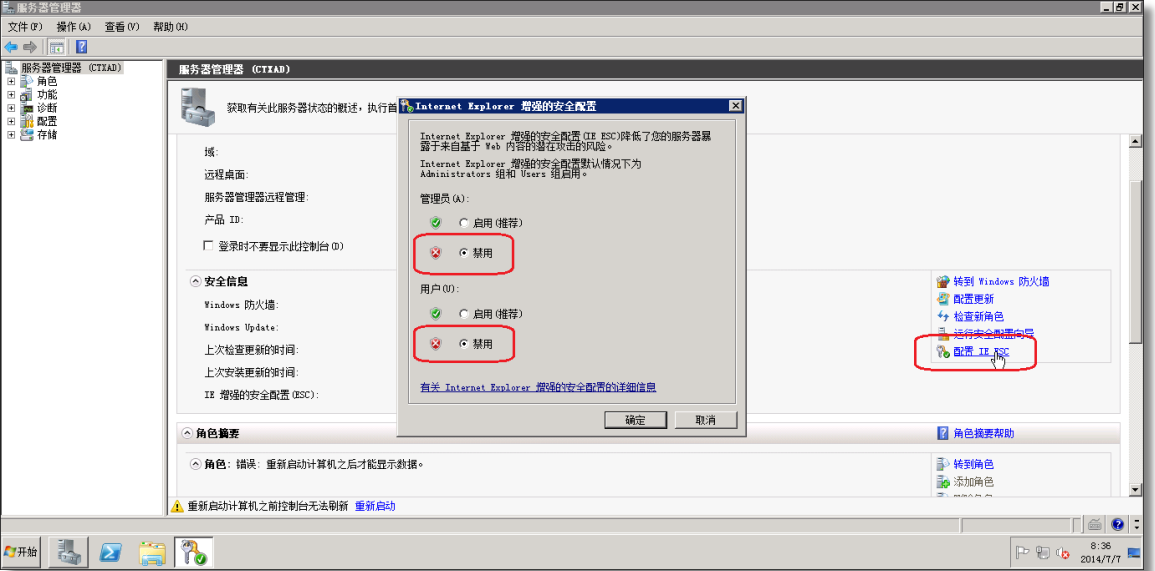
步骤	操作
8.	<p>将磁盘大小修改成 40GB，点击确认</p> 
9.	<p>点击下一步</p> 

步骤	操作
10.	<p>选择网络点击下一步</p>  <p>The screenshot shows the 'New VM' wizard with the 'Network Connection' step selected in the left sidebar. The main area displays a table of virtual network interfaces for Windows Server 2008 R2. The table has two columns: 'MAC' and 'Network'. The first row is highlighted in blue and contains '&lt;自动生成的 MAC&gt;' and '网络 0'. To the right of the table are buttons for '添加(A)...', '删除(D)', and '属性(R)'. Below the table is a note: '如果使用默认模板, 则在 VM 创建过程中可以配置多达 4 个虚拟网络接口。要配置 4 个以上的虚拟网络接口, 请创建一个自定义模板, 或者在创建新 VM 后从“网络”选项卡添加额外的虚拟网络接口。' At the bottom right, the '下一步(N) &gt;' button is highlighted with a mouse cursor.</p>
11.	<p>点击立即创建</p>  <p>The screenshot shows the 'New VM' wizard with the 'Ready to create new virtual machine' step selected in the left sidebar. The main area displays a summary of the VM configuration. The text says: '已收集完所有必需信息, 向导可以使用如下设置置备新虚拟机。' and '请检查这些设置, 如果需要更改任何设置, 请单击“上一步”。否则, 请单击“立即创建”创建新 VM。创建新 VM 可能需要几分钟时间。' Below this is a list of settings: '模板: Windows Server 2008 R2 (64-bit)', '名称: Windows Server 2008 R2', '安装方法: CD', '安装源: cn_windows_server_2008_r2_standard_enterprise_datacenter_and_web_with_sp1_vl...', '主服务器: xenserver-test', 'vCPU: 2', '内存: 4096 MB', and '磁盘 0: 40 GB'. At the bottom, there is a checkbox for '自动启动新 VM(S)' which is checked. At the bottom right, the '立即创建(C)' button is highlighted with a mouse cursor.</p>

步骤	操作
12.	<p>在 XenCenter 控制台中安装 Windows 操作系统</p> 
13.	<p>操作系统安装完成后，访问 WindowsUpdate 或通过企业专有服务器安装相应的补丁和 Service Pack。 安装常用软件，如 office，过程略。</p>
14.	<p>安装 XenTools</p> <p>在 XenCenter 控制台中的“DVD 驱动器”下拉菜单中选择“xs-tools.iso”。将 XenServer Tools 安装文件挂载到虚拟机上</p> 

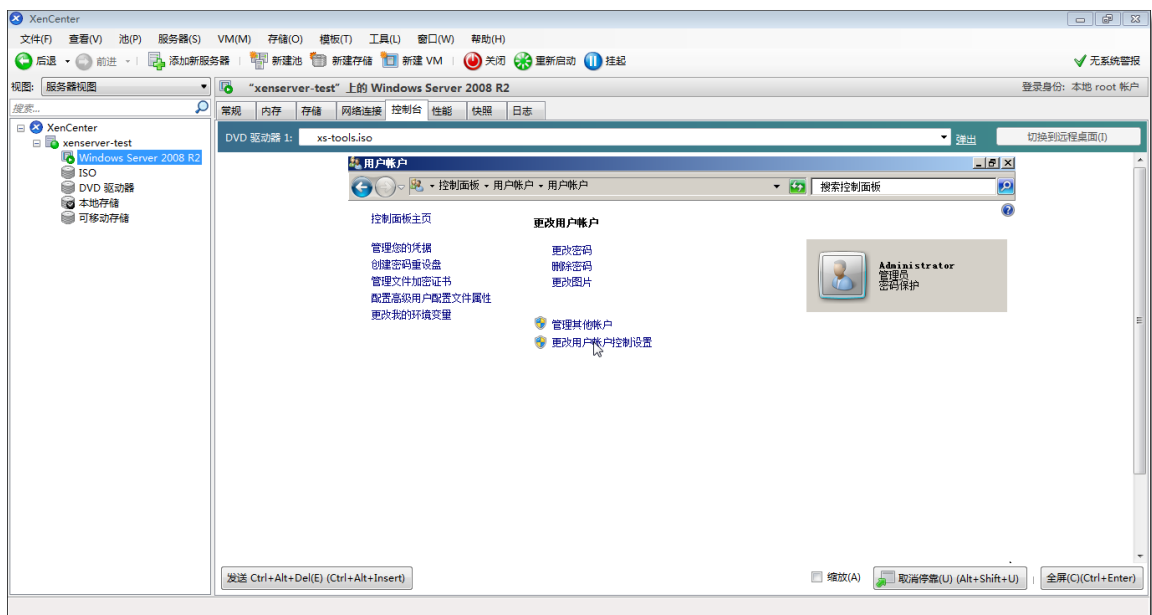
步骤	操作
15.	<p>打开服务器管理器，右键“功能”选择“添加功能”</p> 
16.	<p>勾选“.NET Framework 3.5.1 功能”和其子项前面的复选框。并根据向导进行安装</p> 

步骤	操作
17.	<p>右键虚拟机光驱中图标，选择“从媒体安装或运行程序”</p> <p>▲ 有可移动存储的设备 (1)</p> 
18.	<p>点击“Next”。</p> 

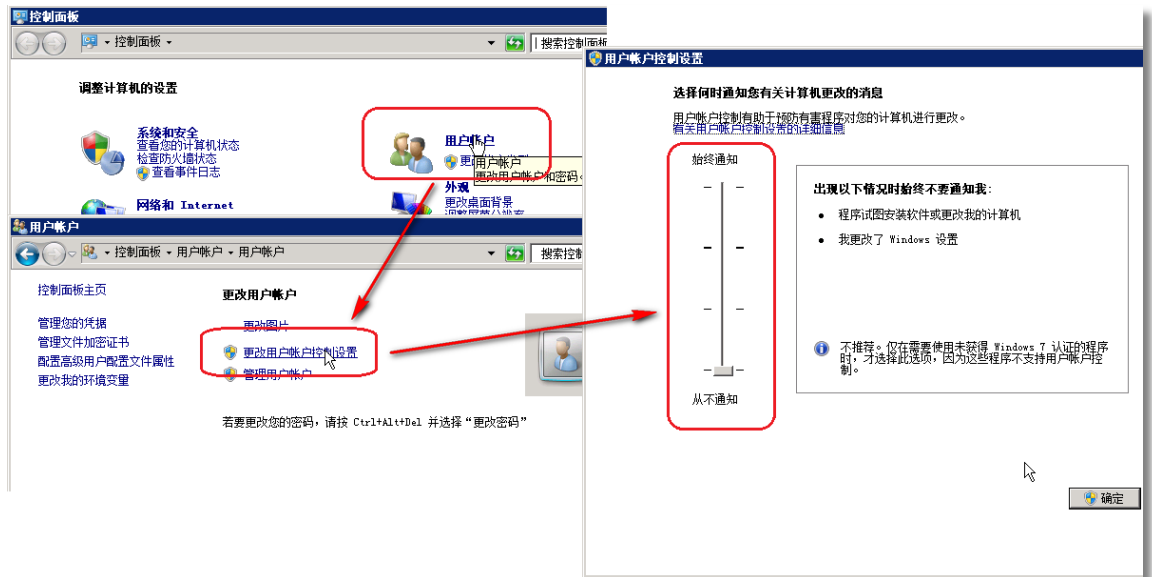
步骤	操作
19.	<p>在 XenCenter 的常规选项卡中查看虚拟化状态，显示“已优化（已安装 6.2 版本）”表示 XenServer Tools 已安装完成</p>  <p>The screenshot shows the XenCenter interface for a VM named 'CTXAD'. The 'General' tab is selected, and the 'Virtualization State' is 'Optimized (6.2 version installed)'. The 'Boot Options' section is also visible.</p>
20.	<p>对模板进行一些设置优化 配置 IE 安全</p>  <p>The screenshot shows the 'Internet Explorer Enhanced Security Configuration' dialog box. The 'Administrators (A)' and 'Users (U)' checkboxes are checked, and the 'Internet Explorer Enhanced Security Configuration' checkbox is checked. The 'Configuration' button is highlighted.</p>

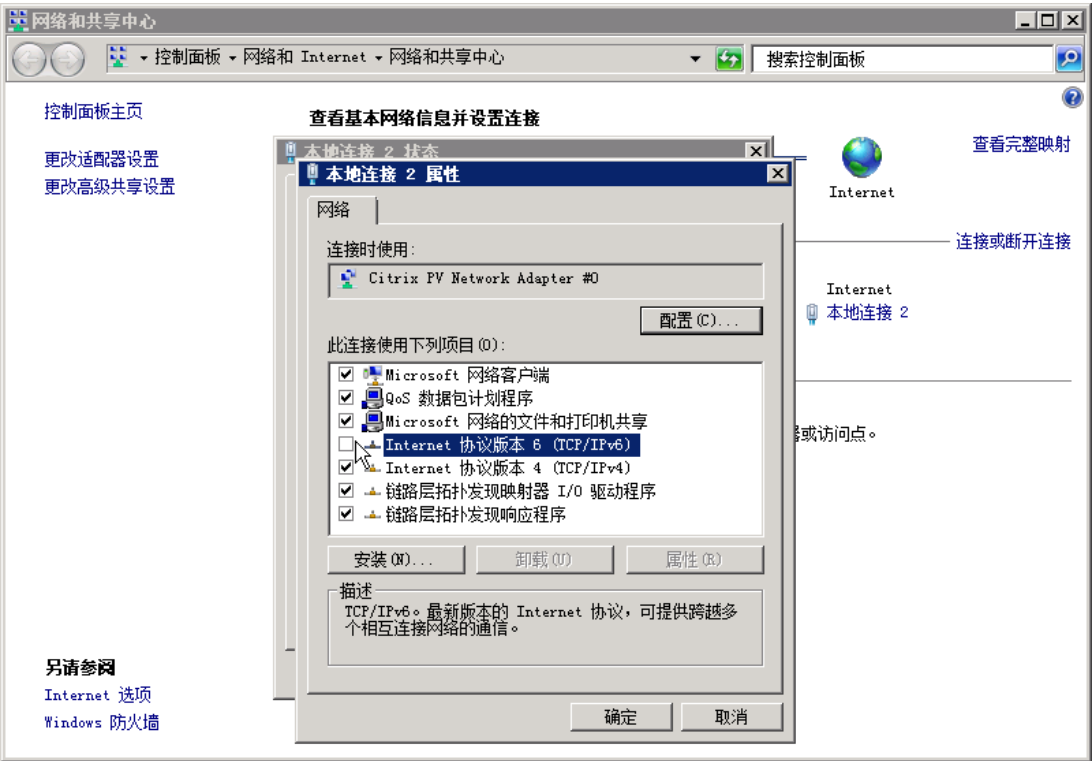
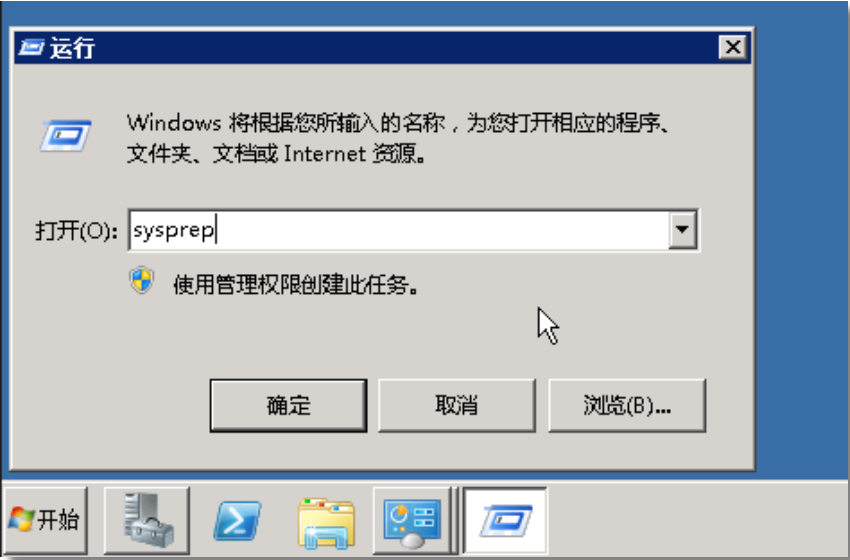
步骤  
21.

操作  
关闭 UAC



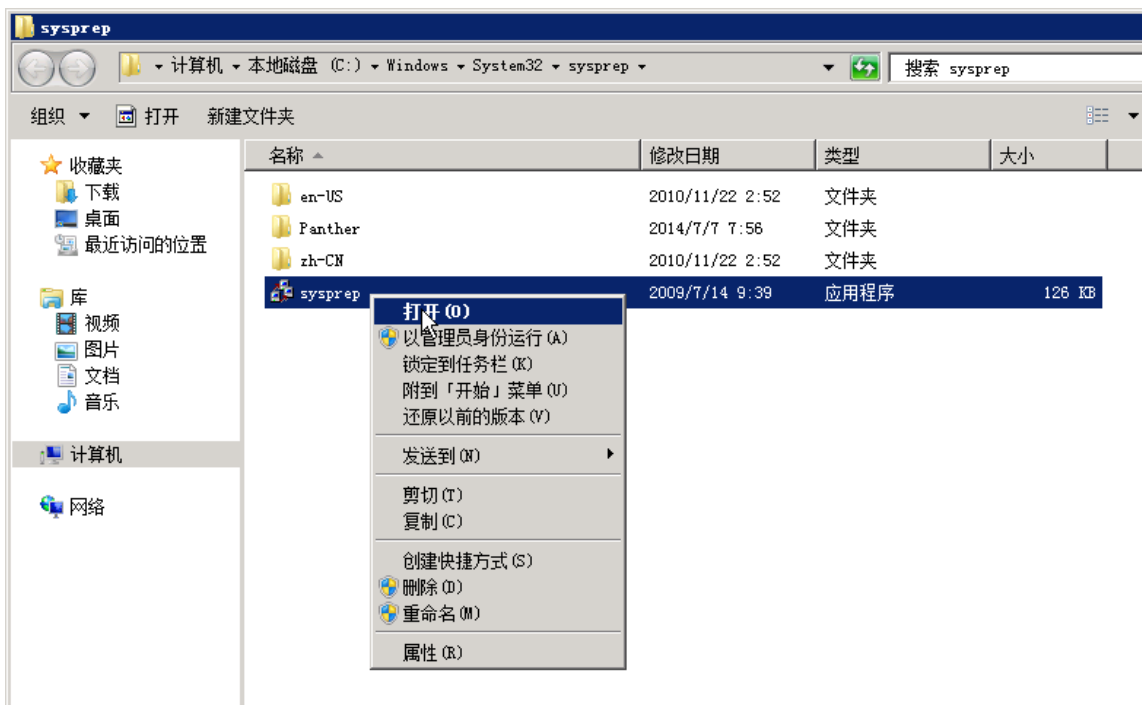
22.



步骤	操作
23.	<p>关闭 IPv6</p> 
24.	<p>对系统模板进行标准化改造 为系统进行 sysprep</p> 

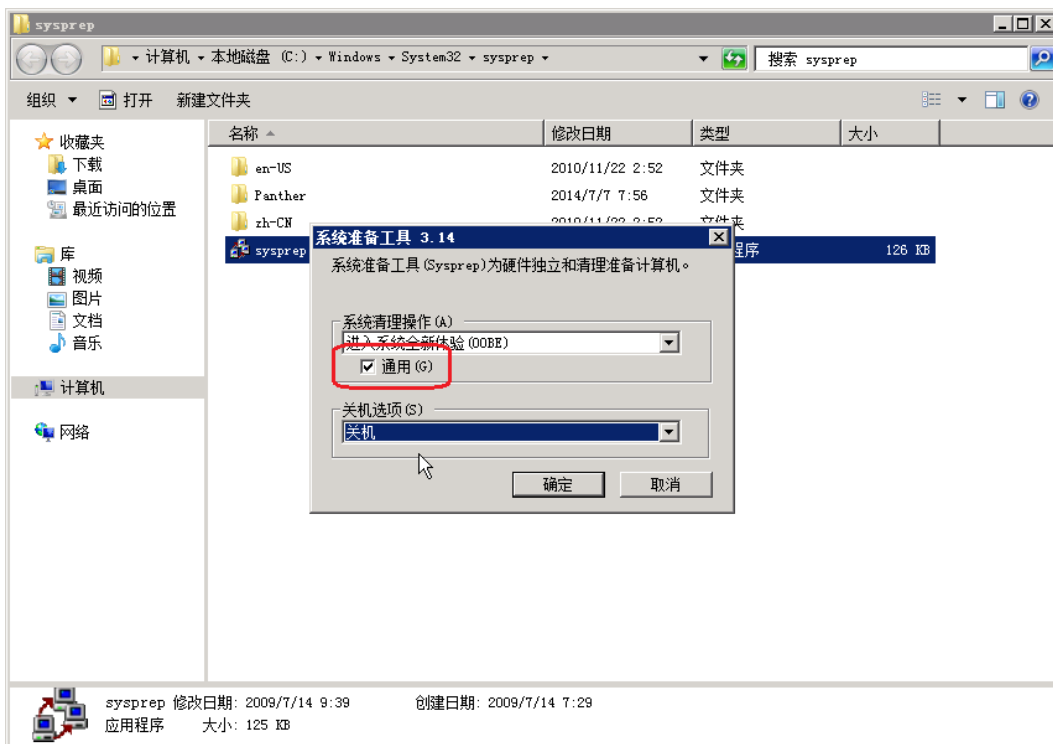
步骤 操作

25. 右击打开



26. 保持关机状态，然后进行下一步模板转换

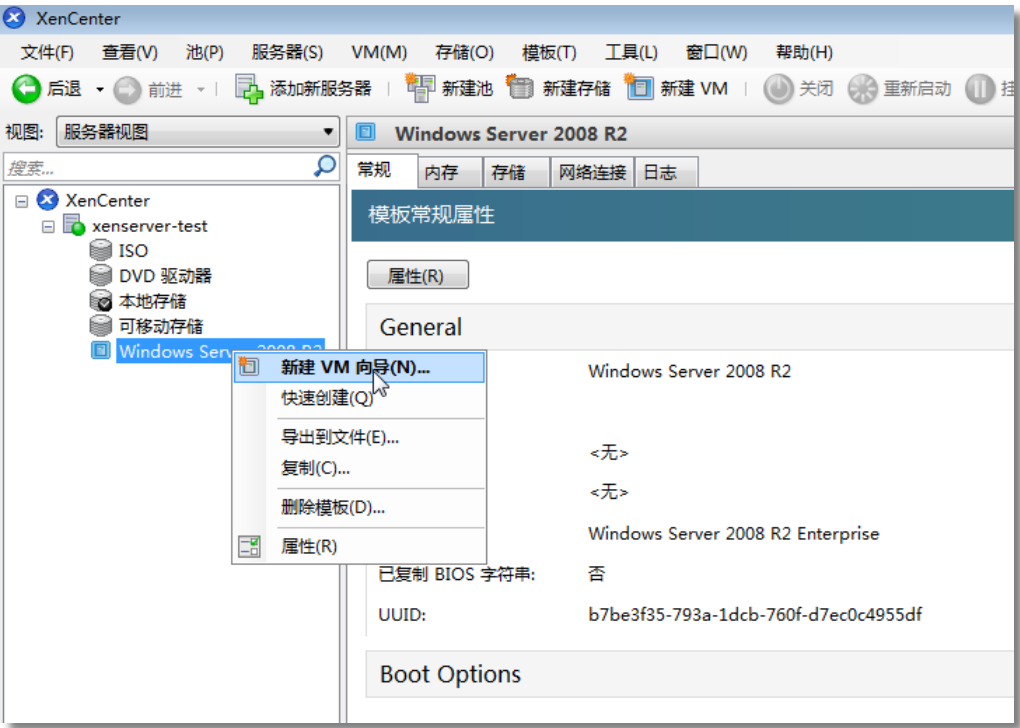
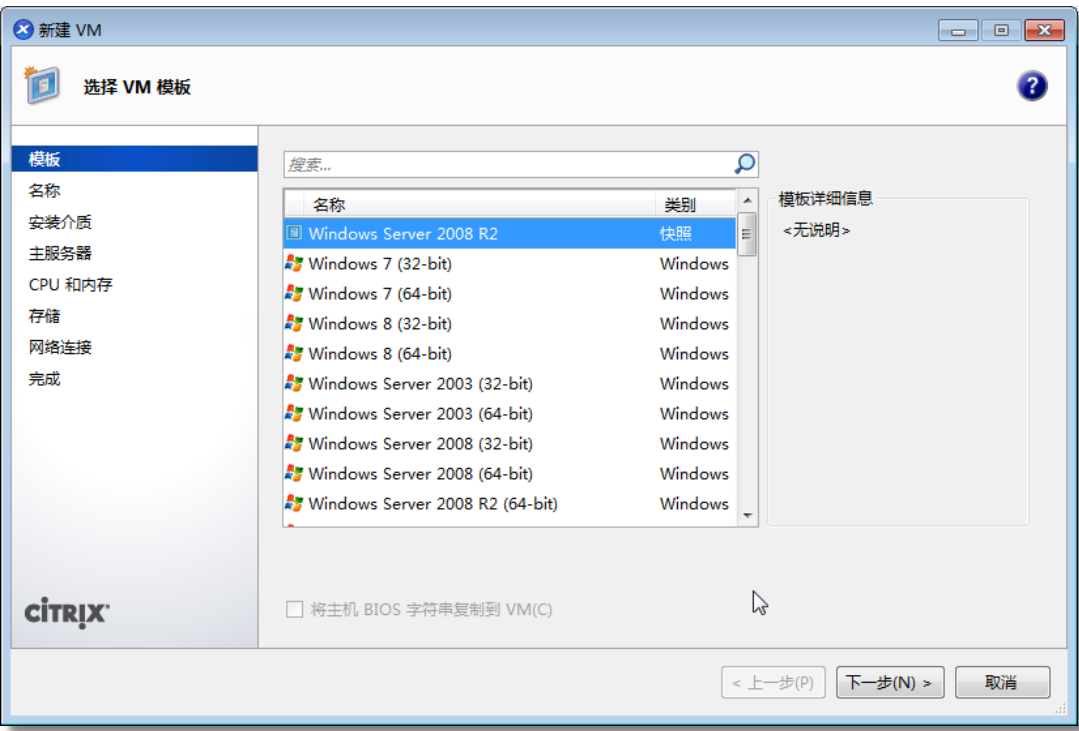
备注：必须勾选通用

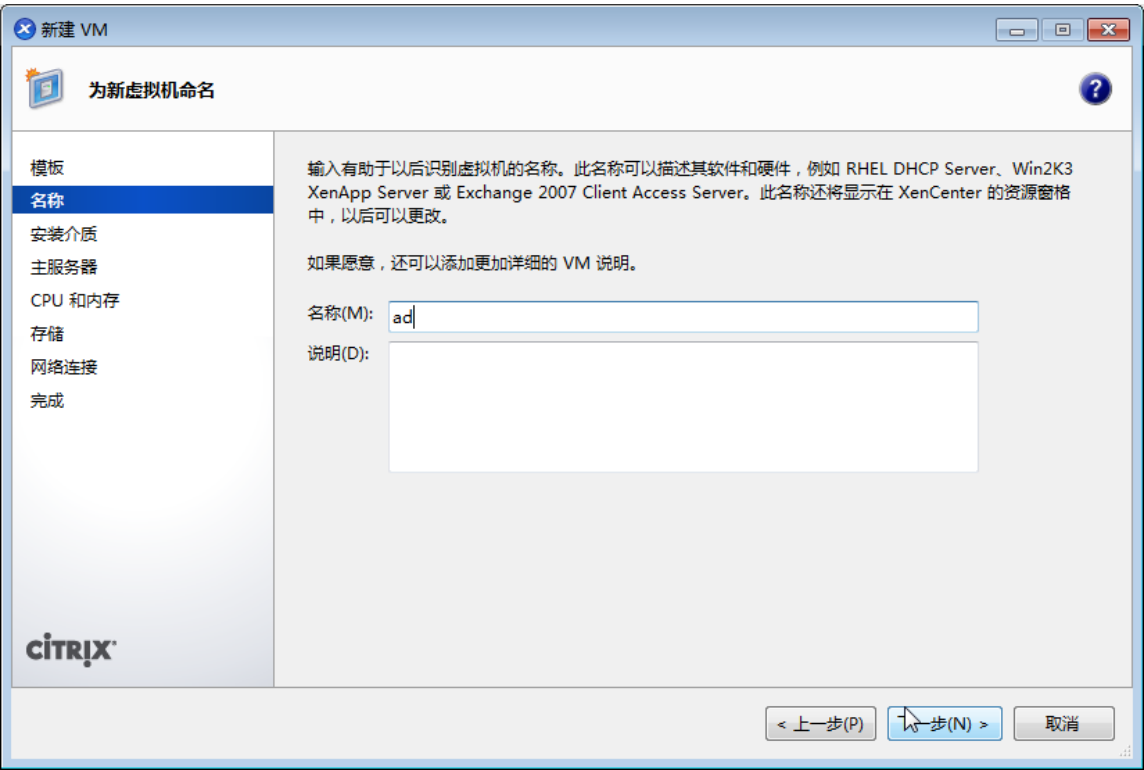
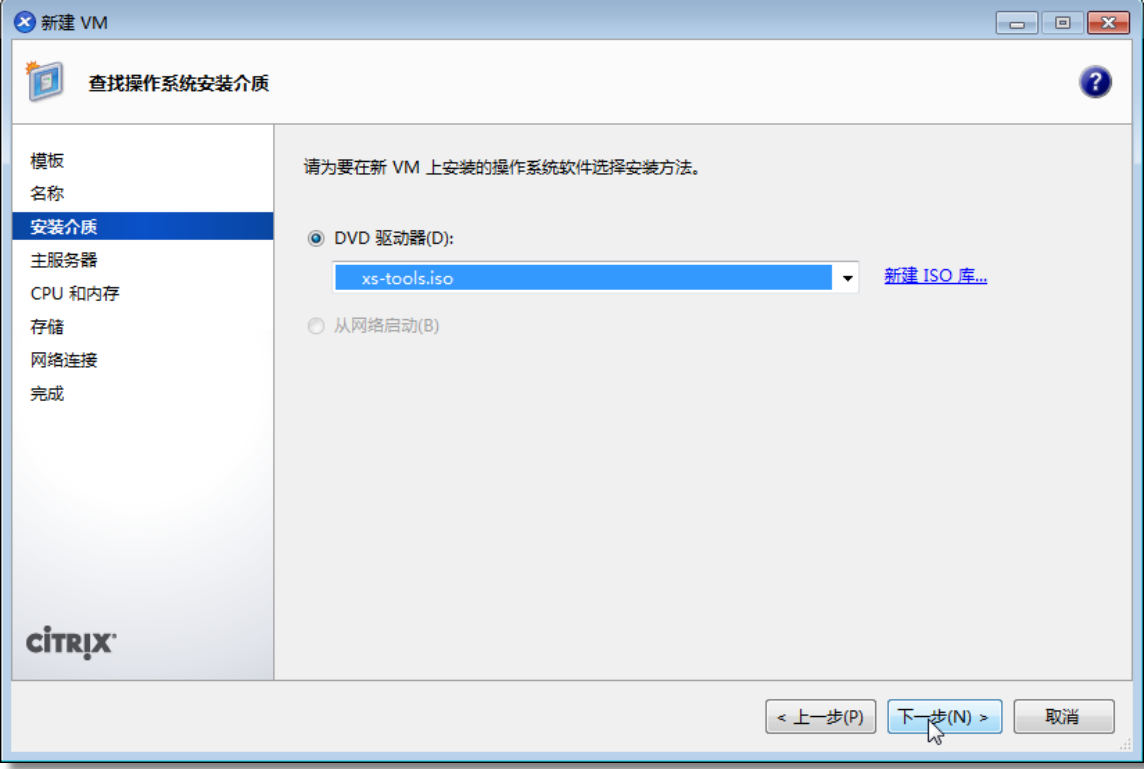


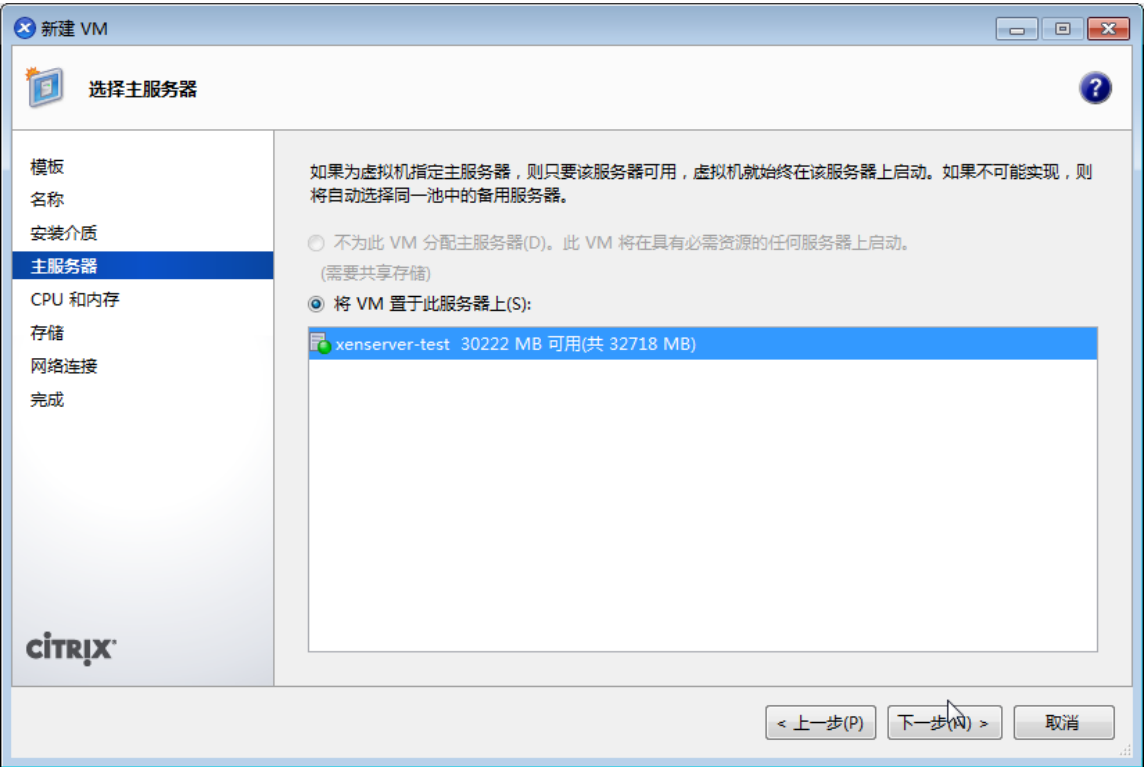
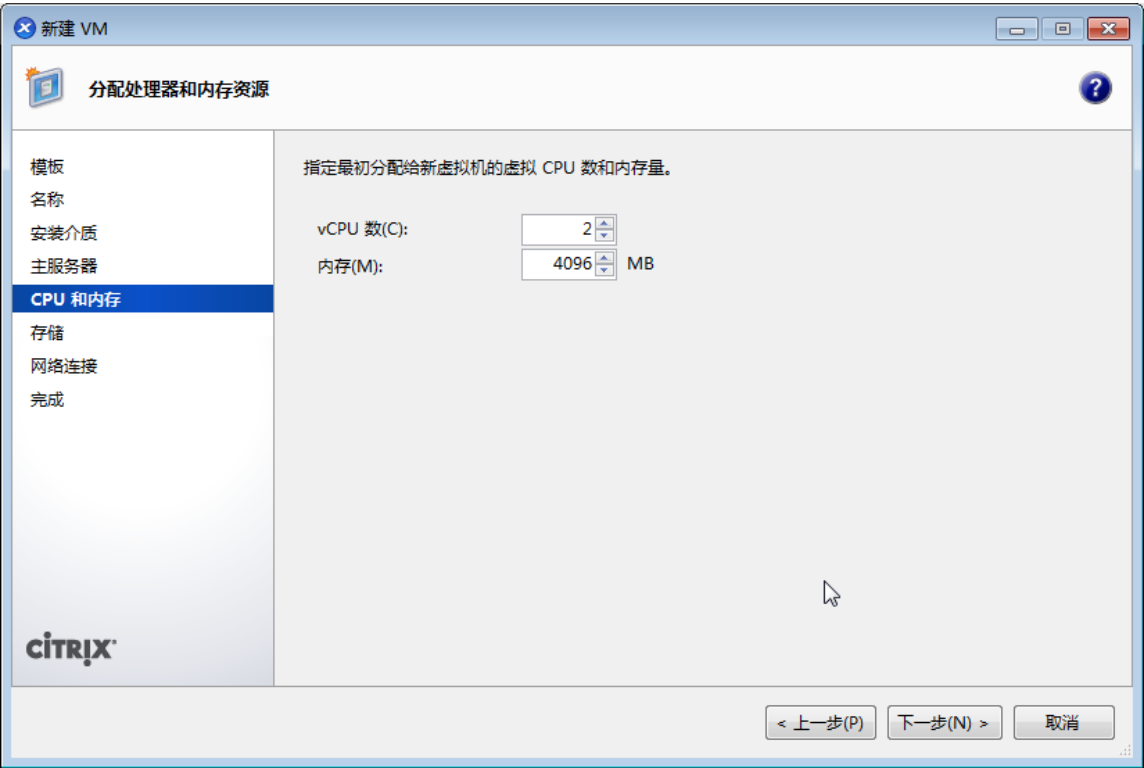
步骤	操作
27.	<p>将虚拟机转换成模板，右击转换为模版</p>  <p>The screenshot shows the XenCenter interface. In the left pane, under 'xenserver-test', a 'Windows Server' VM is selected. A right-click context menu is open, and the '转换为模板(N)...' (Convert to Template) option is highlighted. Other menu items include '启动(T)', '复制 VM(C)...', '移动 VM(M)...', '导出(E)...', '生成快照(A)...', '分配给 vApp(P)', '删除 VM(D)...', and '属性(R)'.</p>

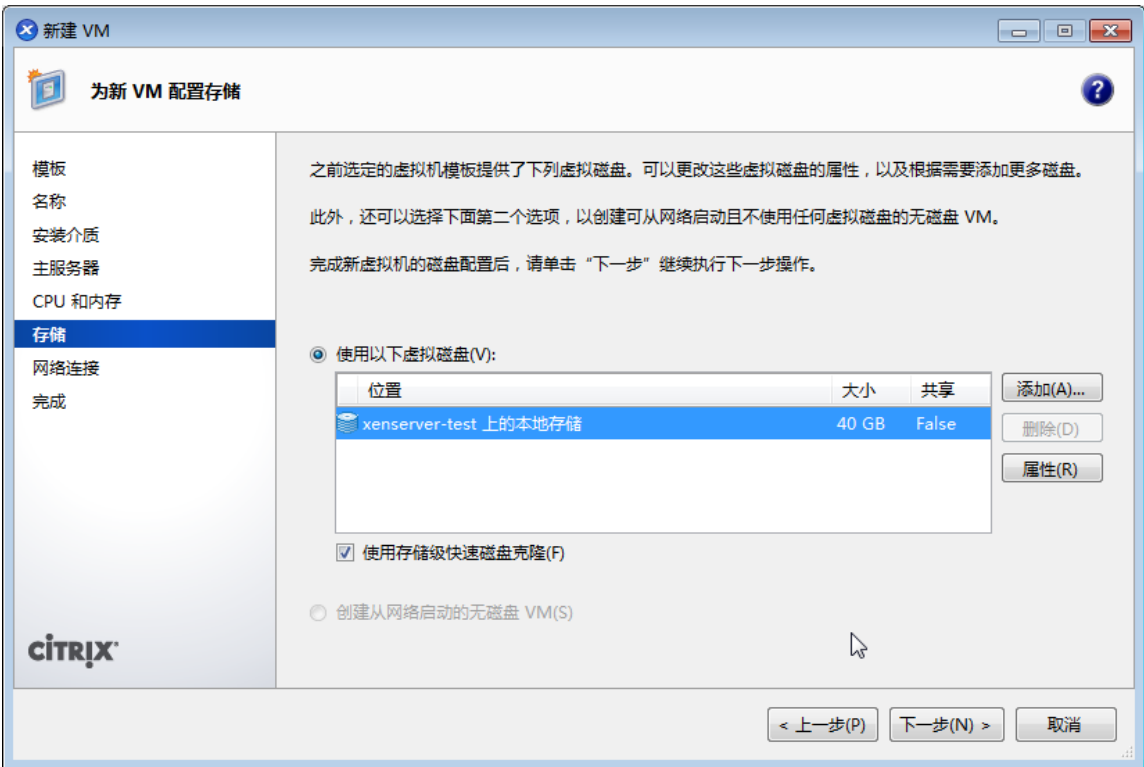
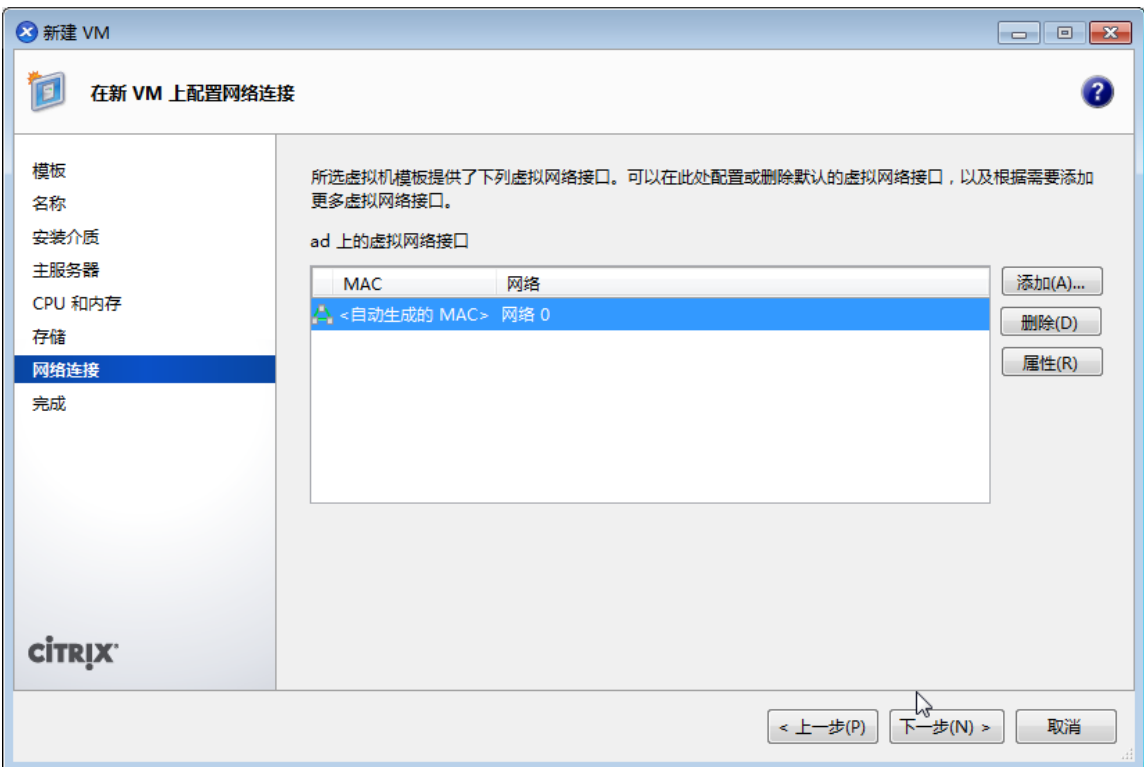
至此，系统模板制作完成。

## 4.3 从模板创建新虚拟机

步骤	操作
1.	<p>右键点击新创建的模板，点击“新建 VM 向导”</p> 
2.	<p>选择刚刚创建的模板</p> 

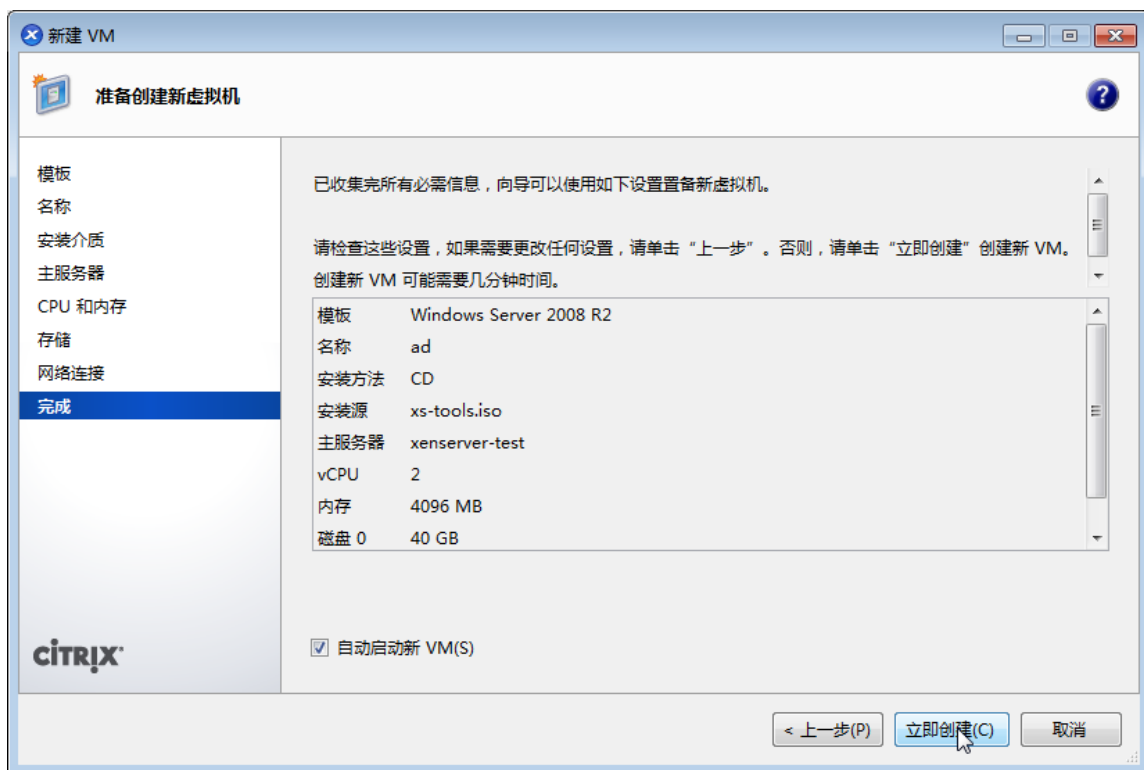
步骤	操作
3.	<p>为新虚拟机命名</p> 
4.	<p>DVD 驱动器建议选择 xs-tools.iso</p> 

步骤	操作
5.	<p>选择该虚拟机默认启动的服务器，下一步</p> 
6.	<p>根据需求调整 vCPU 数量，内存大小，下一步</p> 

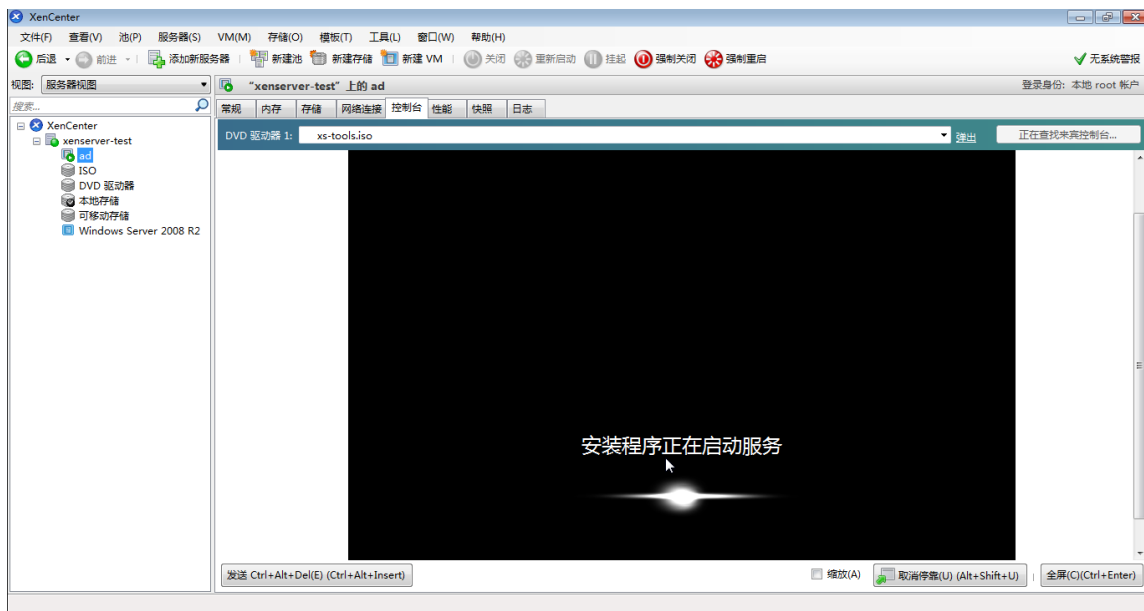
步骤	操作
7.	<div>选择相应的存储，本 PoC 使用本地存储，下一步</div> <div></div>
8.	<div>选择 VM 使用的网络，下一步</div> <div></div>

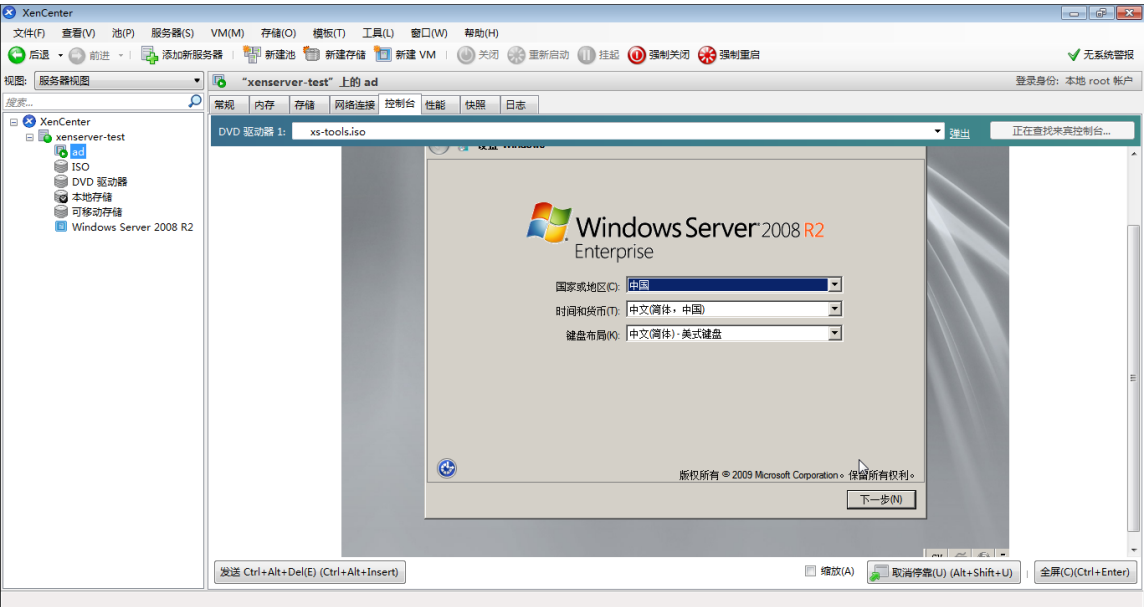
步骤 操作

9. 点击立即创建



10. 启动后，虚拟机进入初始化配置



步骤	操作
11.	<div><div>启动完成后，可以看到虚拟机进入 OOB 系统初始化配置</div><div></div></div>

至此，通过模板创建虚拟机完成

## 第5章 基础环境安装完成检查

请验证以下项目，确认 XenServer 基础环境以及搭建完毕。

- XenServer 启动及运行正常，网络、存储均已配置，ISO 库已建立。
- XenCenter 管理控制台连接及工作正常。
- 常用操作系统模板以及制作或者导入完成，从模板生成虚拟机工作正常。
- OS 模板已经正确进行了 Sysprep，以保证生成的操作系统未来加入域以后工作正常。

产品版本

产品	版本
XenDesktop	7.5
XenApp	7.5
XenServer	6.2 SP1
NetScaler	10.1