

在发生灾难性故障时，在BE6K/7K上配置CIMC并安装ESXi

目录

[简介](#)

[先决条件](#)

[要求](#)

[使用的组件](#)

[背景信息](#)

[要遵循的流程](#)

[第1部分：CIMC配置](#)

[第2部分：ESXi安装](#)

[验证](#)

[故障排除](#)

简介

本文档介绍在发生完全硬件故障或完全服务器更换时在BE6/7K服务器上安装Elastic Sky X Integrated(ESXi)和配置思科集成管理控制器(CIMC)的过程。本文档帮助从头开始设置服务器。

先决条件

要求

Cisco 建议您了解以下主题：

- 物理访问服务器以连接键盘和显示器
- 需要访问键盘和显示器
- CIMC Dongle，用于连接显示器和键盘
- VMware中的免费帐户，用于下载思科客户映像

使用的组件

本文档不限于特定的软件和硬件版本。

本文档中的信息都是基于特定实验室环境中的设备编写的。本文档中使用的所有设备最初均采用原始（默认）配置。如果您的网络处于活动状态，请确保您了解所有命令的潜在影响。

背景信息

BE6K/7K是打包的解决方案，即ESXi预安装在服务器上。有时，您会遇到BE6k/7K问题，您必须更换所有硬盘驱动器(HDD)，或者无法恢复数据或虚拟驱动器(VD)故障或完全服务器更换，然后您必须在新硬件上安装ESXi。本文档介绍在此类事件中安装ESXi和配置CIMC时要遵循的过程

要遵循的流程

过程可分为两部分：

第1部分：配置CIMC并创建VD。

1. 使用键盘/视频/鼠标(KVM)转换器将键盘和显示器连接到统一计算系统(UCS)服务器的控制台
2. 打开服务器电源
3. 配置CIMC IP
4. 确保所有物理驱动器都处于良好状态
5. 在RAID 5中创建VD

第2部分：在创建的VD上安装ESXi。

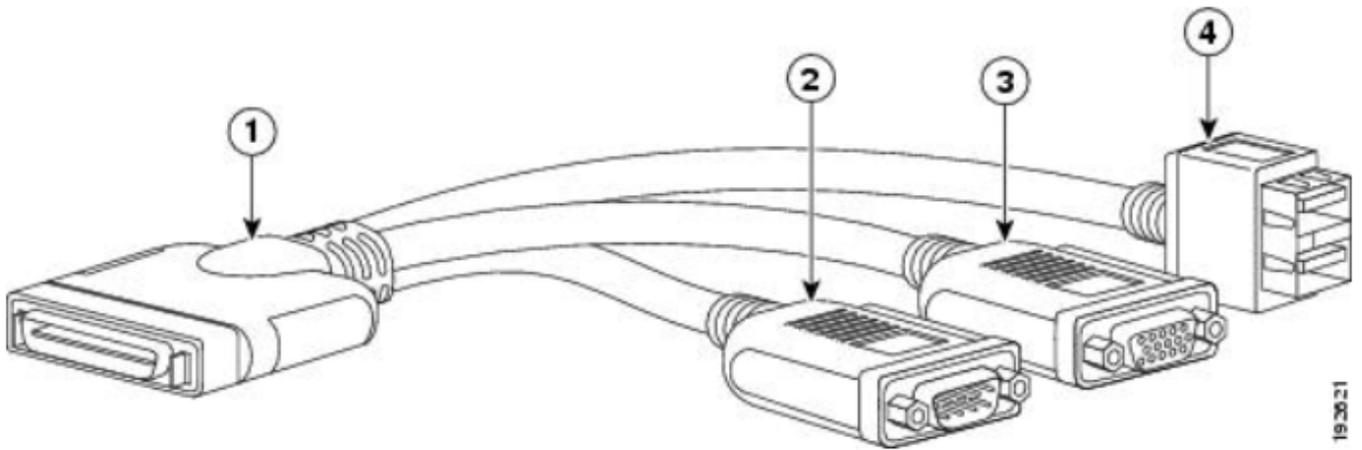
1. 从VMware下载思科自定义ISO®
2. 登录CIMC并启动KVM控制台。（确保PC上安装了JRE）
3. 使用KVM控制台安装虚拟ISO
4. 从KVM重新启动UCS服务器，启动时按F6
5. 选择**虚拟CD/DVD**，按Enter
6. 继续ESXi安装
7. 从直接控制台用户界面(DCUI)按F2，配置ESXi IP、子网、VLAN（可选）
8. 从Vsphere客户端访问ESXi IP

第1部分：CIMC配置

屏幕截图的程序。

步骤1.使用KVM转换器将键盘和显示器连接到UCS服务器的控制台，如图所示。

Figure B-1 KVM Cable

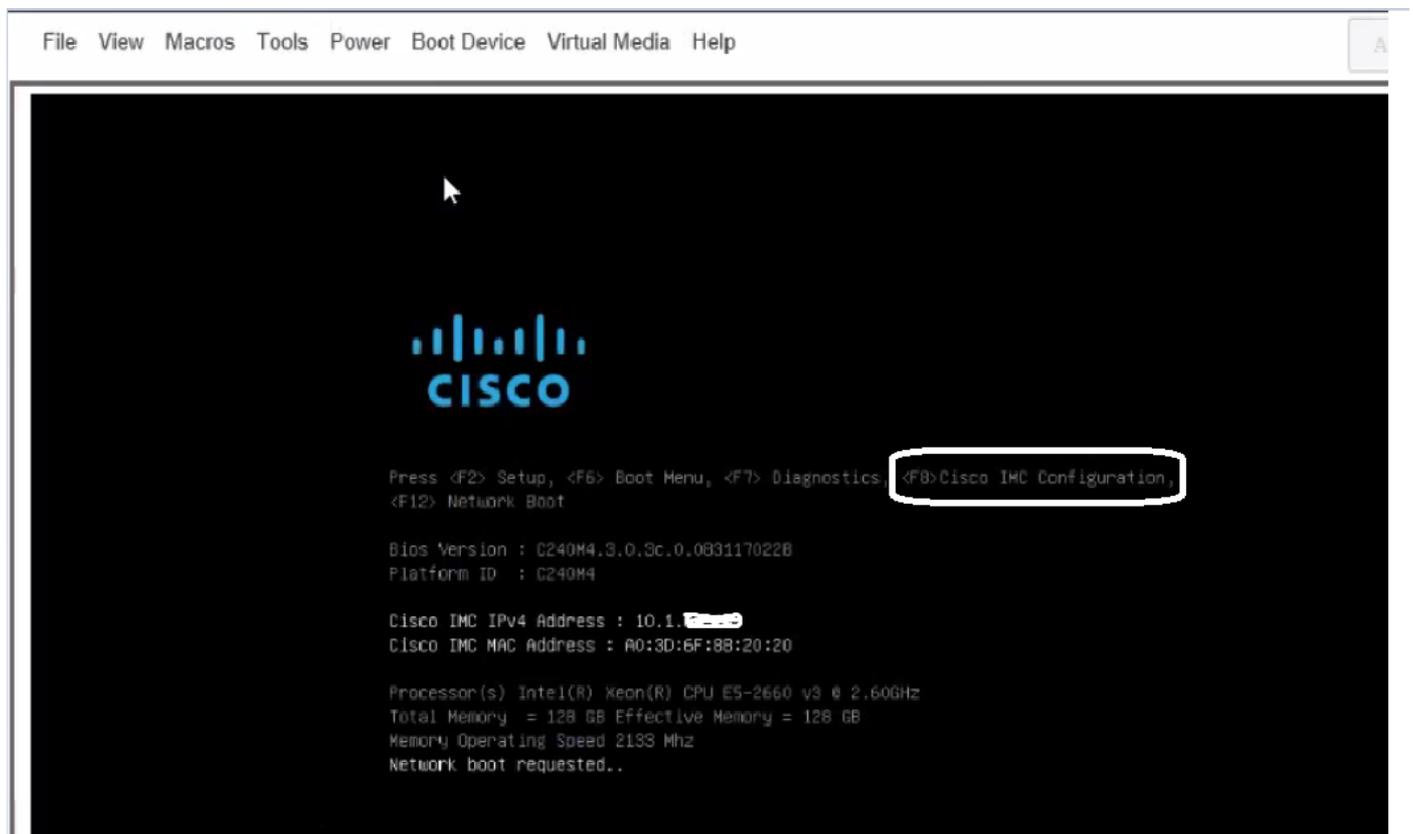


Related image, diagram or screenshot.

1	Connector to server	3	VGA connection for a monitor
2	DB9 serial connector	4	Two-port USB connector for a mouse and keyboard

步骤2.打开服务器电源。

步骤3.在“开机”闪屏上按F8，如图所示。



步骤4.如图所示，配置CIMC以实现连接。

进入CIMC实用程序后，您必须配置：

- CIMC IP地址
- 默认网关
- 设置CIMC的密码

```

CIMC Configuration Utility  Version 1.5  Cisco Systems, Inc.
*****
NIC Properties
NIC mode                               NIC redundancy
Dedicated:          [X]                None:                [X]
Shared LOM:         [ ]                Active-standby:     [ ]
Cisco Card:         [ ]                Active-active:      [ ]
IPU4 (Basic)
DHCP enabled:       [ ]                Factory Defaults
CIMC IP:             10.110.9.11        CIMC Factory Default:[ ]
Subnetmask:          255.255.255.0      Default User (Basic)
Gateway:             10.110.9.1         Default password:
Reenter password:
ULAN (Advanced)
ULAN enabled:        [ ]
ULAN ID:              1
Priority:             0

*****
<Up/Down arrow> Select items    <F10> Save    <Space bar> Enable/Disable
<F5> Refresh                    <ESC> Exit

```

步骤5.创建VD。

要创建VD，您必须执行以下操作：

1. 启动CIMC
 2. 导航到存储
 3. 导航至“存储”>“控制器信息”
 4. 导航至控制器信息>从未使用的物理驱动器创建虚拟驱动器
 5. 选择RAID为5
 6. 选择硬盘 注意：Raid 5至少需要3个硬盘。
 7. 设置名称和属性
 8. 单击“创建虚拟驱动器”
- 1.从Web浏览器启动CIMC，接受您收到的所有证书警报，如图所示。

Server Properties

Product Name: UCS C220 M4S
Serial Number: FCH1850V31Y
PID: UCSC-C220-M4S
UUID: CA872166-B342-4C1B-A750-F841485DF926
BIOS Version: C220M4.3.0.3c.0.0831170216
Description:
Asset Tag:

Cisco Integrated Management Controller (Cisco IMC) Information

Hostname: C220-FCH1850V31Y
IP Address: 10.197.252.34
MAC Address: 64:F6:9D:36:B2:8C
Firmware Version: 3.0(3f)
Current Time (UTC): Thu Apr 26 11:38:21 2018
Local Time: Thu Apr 26 17:08:21 2018 IST +0530
Timezone: Asia/Kolkata [Select Timezone](#)

Chassis Status

Power State: ● On
Overall Server Status: ✘ Severe Fault
Temperature: ✔ Good
Overall DIMM Status: ✘ Severe Fault

Server Utilization



2. 导航至存储，如图所示。

The screenshot displays the Cisco IMC interface. The top navigation bar includes the Cisco logo and the text 'Cisco Integrated Management Controller'. Below this, the breadcrumb path is '/ Chassis / Summary'. The left sidebar contains a menu with the following items: 'Chassis', 'Summary' (highlighted in blue), 'Inventory', 'Sensors', 'Power Management', 'Faults and Logs', 'Compute', 'Networking', 'Storage' (highlighted with a red box), and 'Admin'. The main content area is divided into two sections: 'Server Properties' and 'Chassis Status'. The 'Server Properties' section lists the following information: Product Name: UCS C240 M4L, Serial Number: FCH1850V2PN, PID: UCSC-C240-M4L, UUID: 11953DD2-6F29-4DED-B569-61168CD5A823, BIOS Version: C240M4.3.0.0.10.1026161038, Description: (empty text box), and Asset Tag: Unknown. The 'Chassis Status' section shows the following status indicators: Power State: On (green dot), Overall Server Status: Good (green checkmark), Temperature: Good (green checkmark), Overall DIMM Status: Good (green checkmark), Power Supplies: Good (green checkmark), Fans: Good (green checkmark), Locator LED: Off (grey dot), and Overall Storage Status: Good (green checkmark).

Chassis / Summary

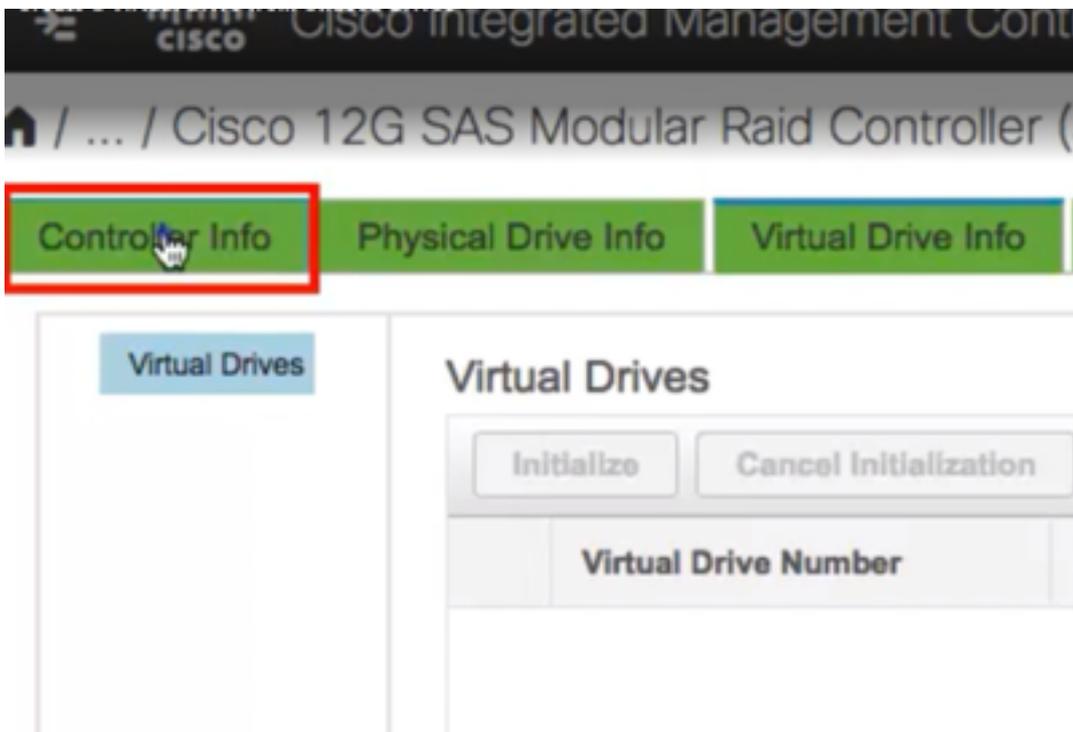
Server Properties

Product Name: UCS C240 M4L
Serial Number: FCH1850V2PN
PID: UCSC-C240-M4L
UUID: 11953DD2-6F29-4DED-B569-61168CD5A823
BIOS Version: C240M4.3.0.0.10.1026161038
Description:
Asset Tag:

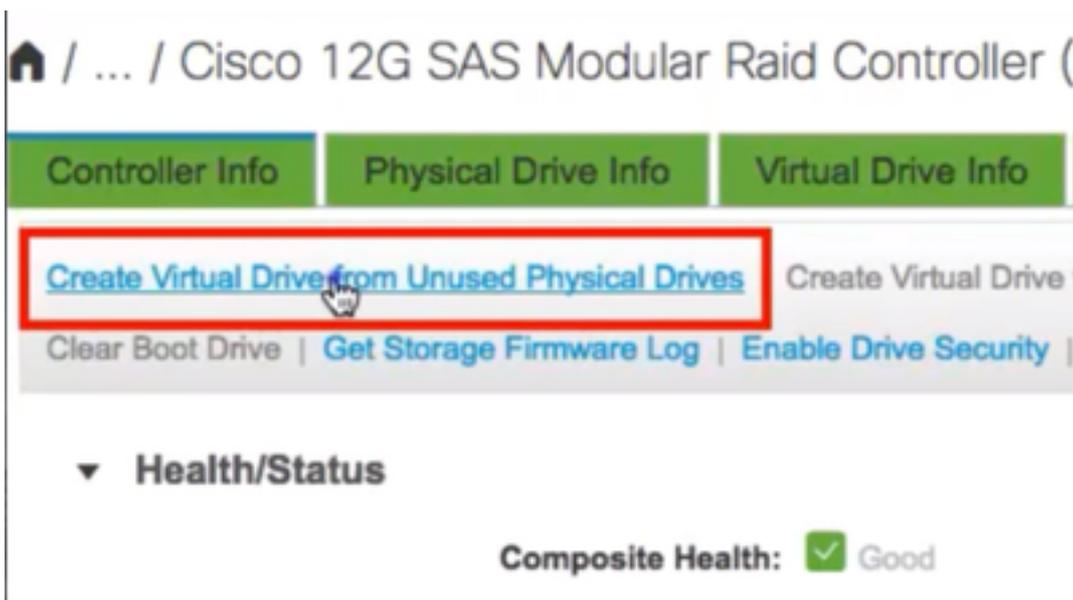
Chassis Status

Power State: ● On
Overall Server Status: ✔ Good
Temperature: ✔ Good
Overall DIMM Status: ✔ Good
Power Supplies: ✔ Good
Fans: ✔ Good
Locator LED: ● Off
Overall Storage Status: ✔ Good

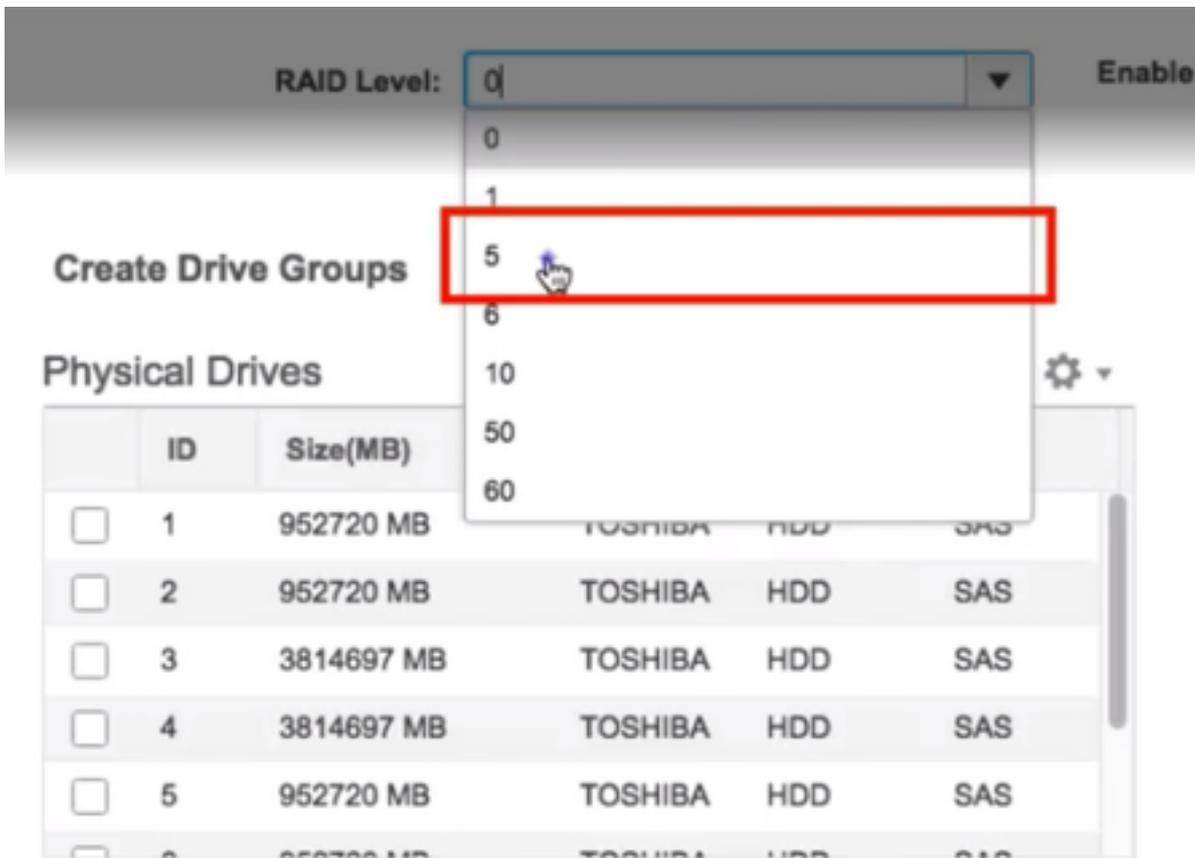
3. 导航至“存储”>“控制器信息”，如图所示。



4. 导航至“控制器信息”>“从未使用的物理驱动器创建虚拟驱动器”，如图所示。



5. 从下拉选项中选择RAID级别5，如图所示。



6.选择HDD，如图所示。

注意：Raid 5至少需要3个硬盘。



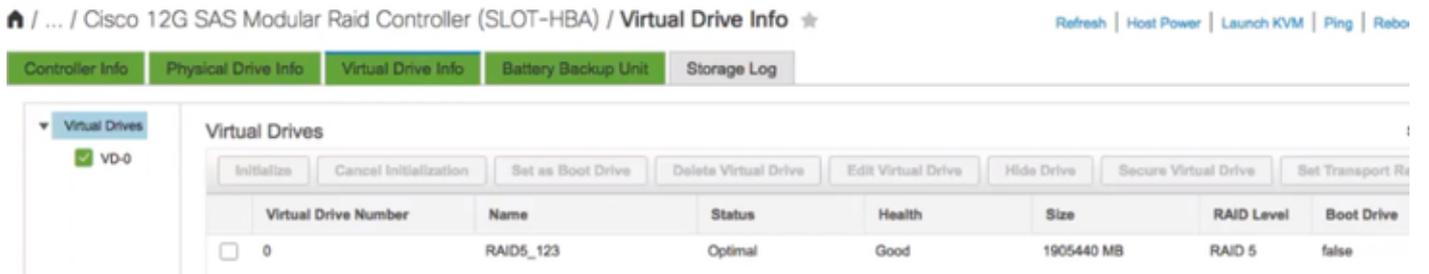
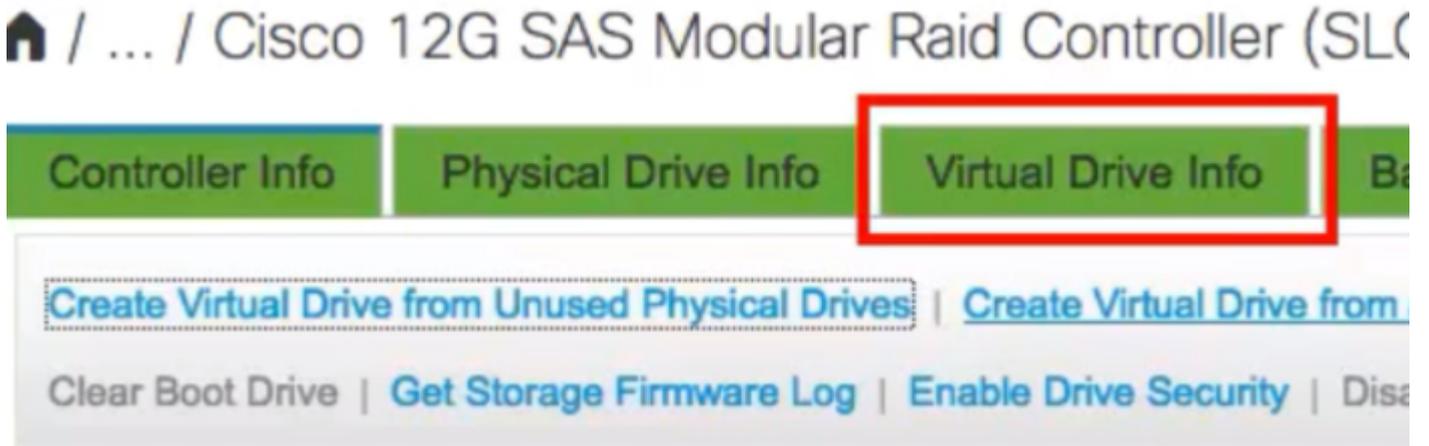
7.设置名称和属性，如图所示。

8.单击“创建虚拟驱动器”，如图所示。

Virtual Drive Properties

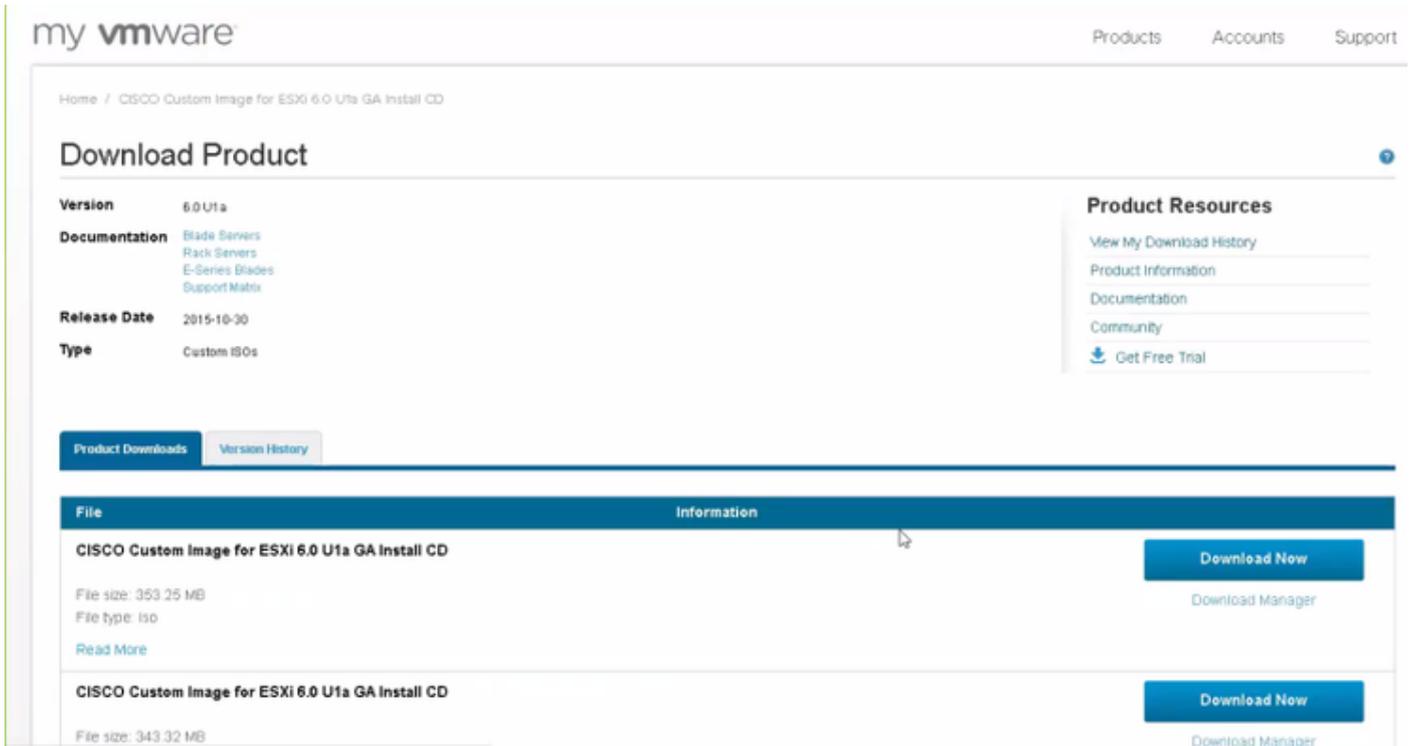
Name:	RAID5_123	Disk Cache Policy:	Unchanged	
Access Policy:	Read Write	Write Policy:	Write Through	
Read Policy:	No Read Ahead	Strip Size (MB):	64k	
Cache Policy:	Direct IO	Size:	1905440 MB	
		[952720 : 1905440]		
		Generate XMLAPI Request	Create Virtual Drive	Close

9.验证驱动器是否如图所示创建的。



第2部分：ESXi安装

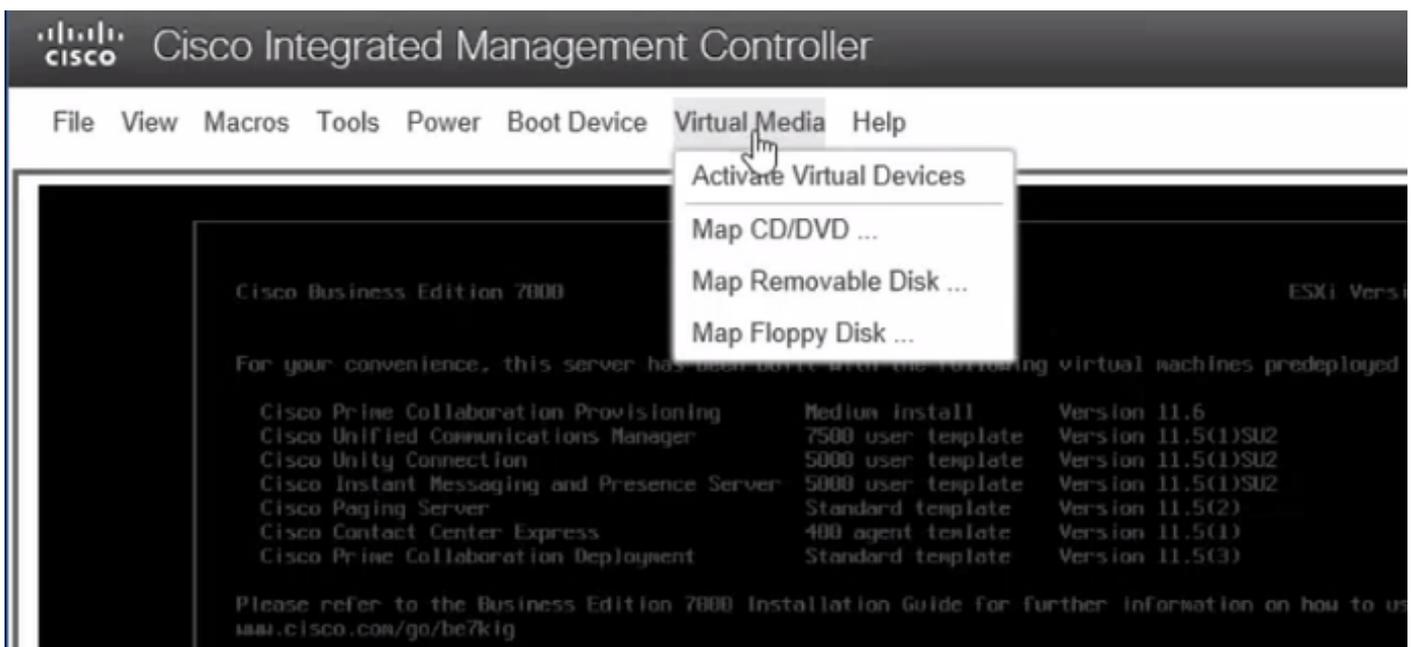
步骤1.从VMware下载思科自定义ISO®，如图所示。

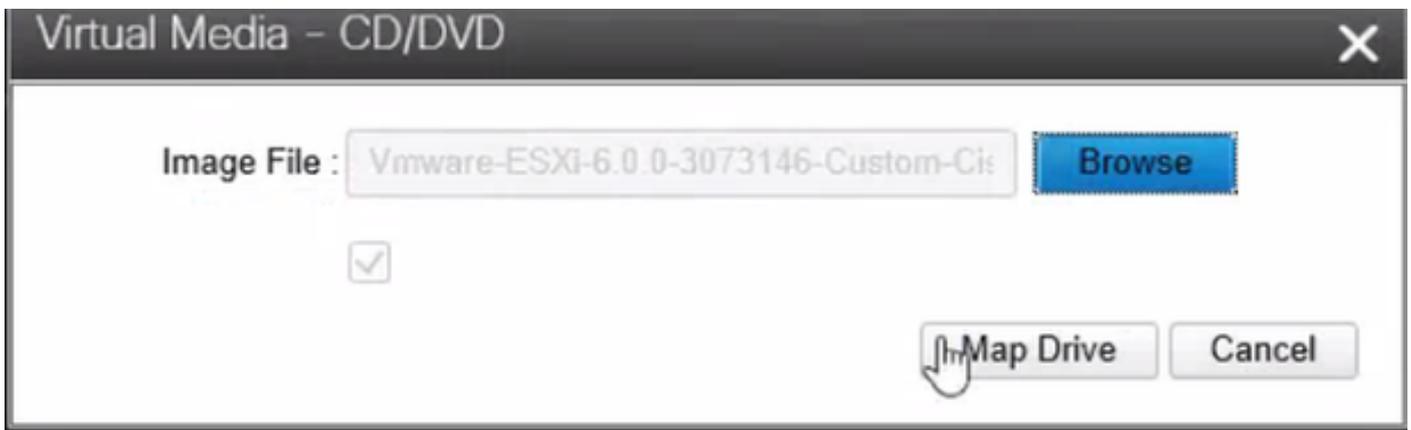


步骤2.登录CIMC并启动KVM控制台。（如果使用基于Java的PC，请确保JRE 1.7或更高版本已安装）。在这种情况下，您使用基于HTML的KVM，如图所示。

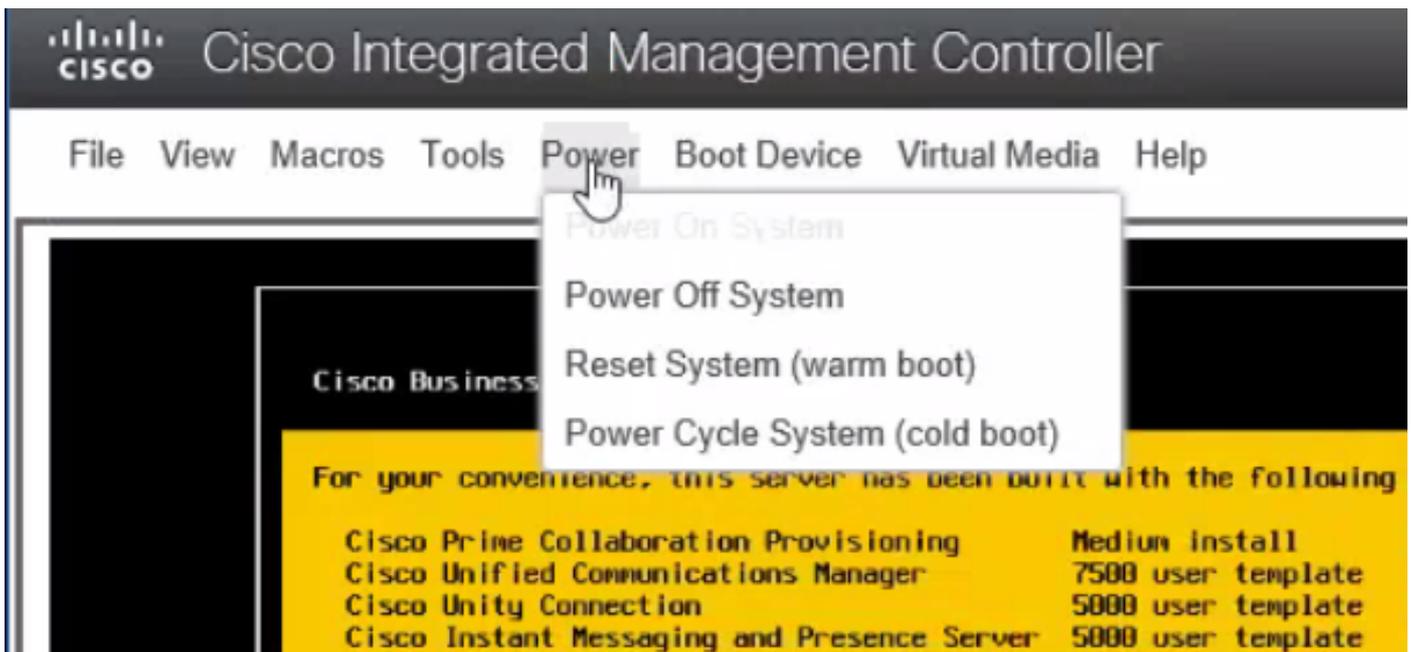


步骤3.如图所示，使用KVM控制台安装虚拟ISO。



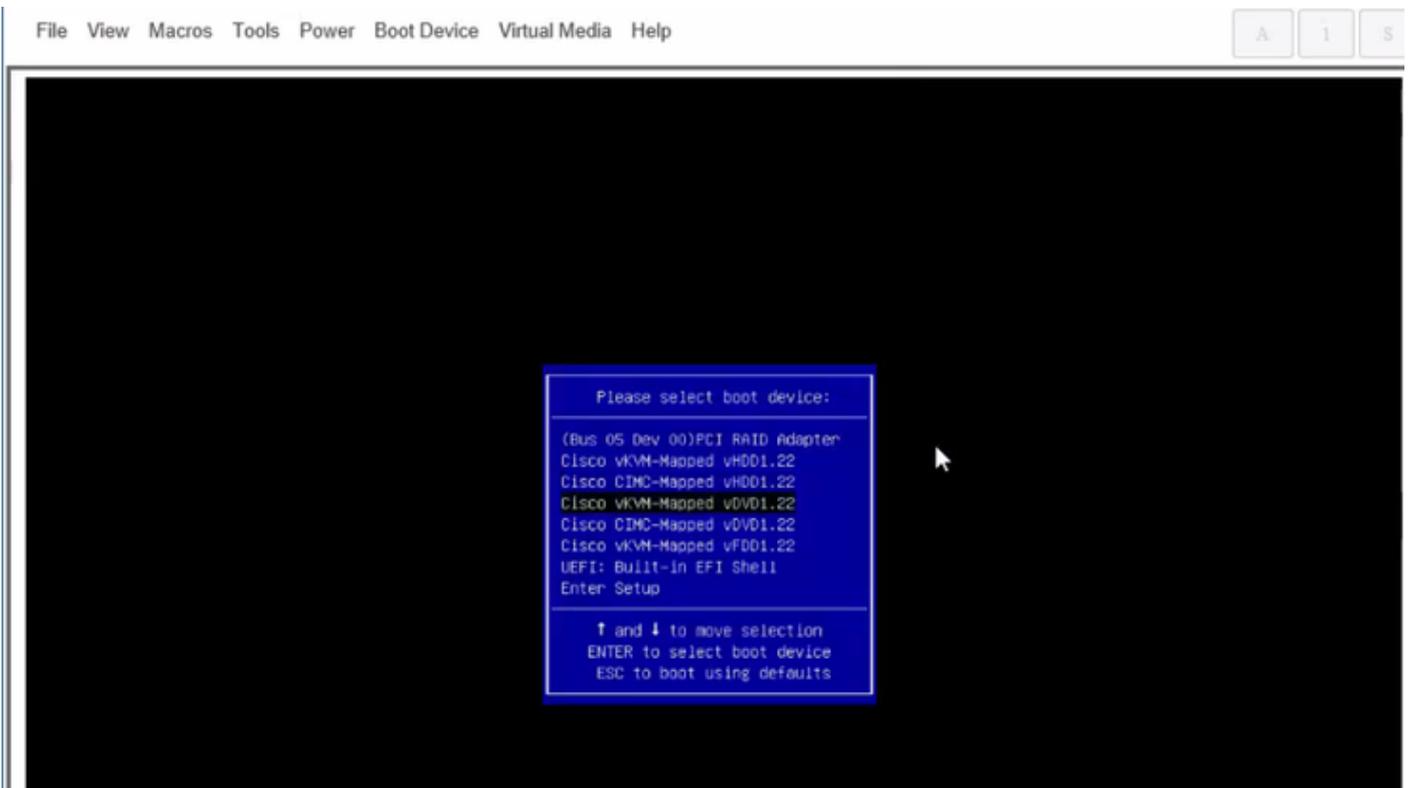


步骤4.从KVM重新启动UCS服务器，启动时按F6，如图所示。





步骤5.选择“虚拟CD/DVD选项”，按Enter键，如图所示。



步骤6.继续执行ESXi安装，如图所示。

Umware-ESXi-6.0.0-3073146-Custom-Cisco-6.0.1.1 Boot Menu

Umware-ESXi-6.0.0-3073146-Custom-Cisco-6.0.1.1 installer
Boot from local disk

Press [Tab] to edit options

Automatic boot in 7 seconds...

Loading ESXi Installer

Loading /tboot.b00
Loading /b.b00
Loading /jrepsrnt.gz
Loading /useropts.gz
Loading /k.b00

VMware ESXi 6.0.0 (VMKernel Release Build 3073146)

Initializing timing ...



VMware ESXi 6.0.0 Installer

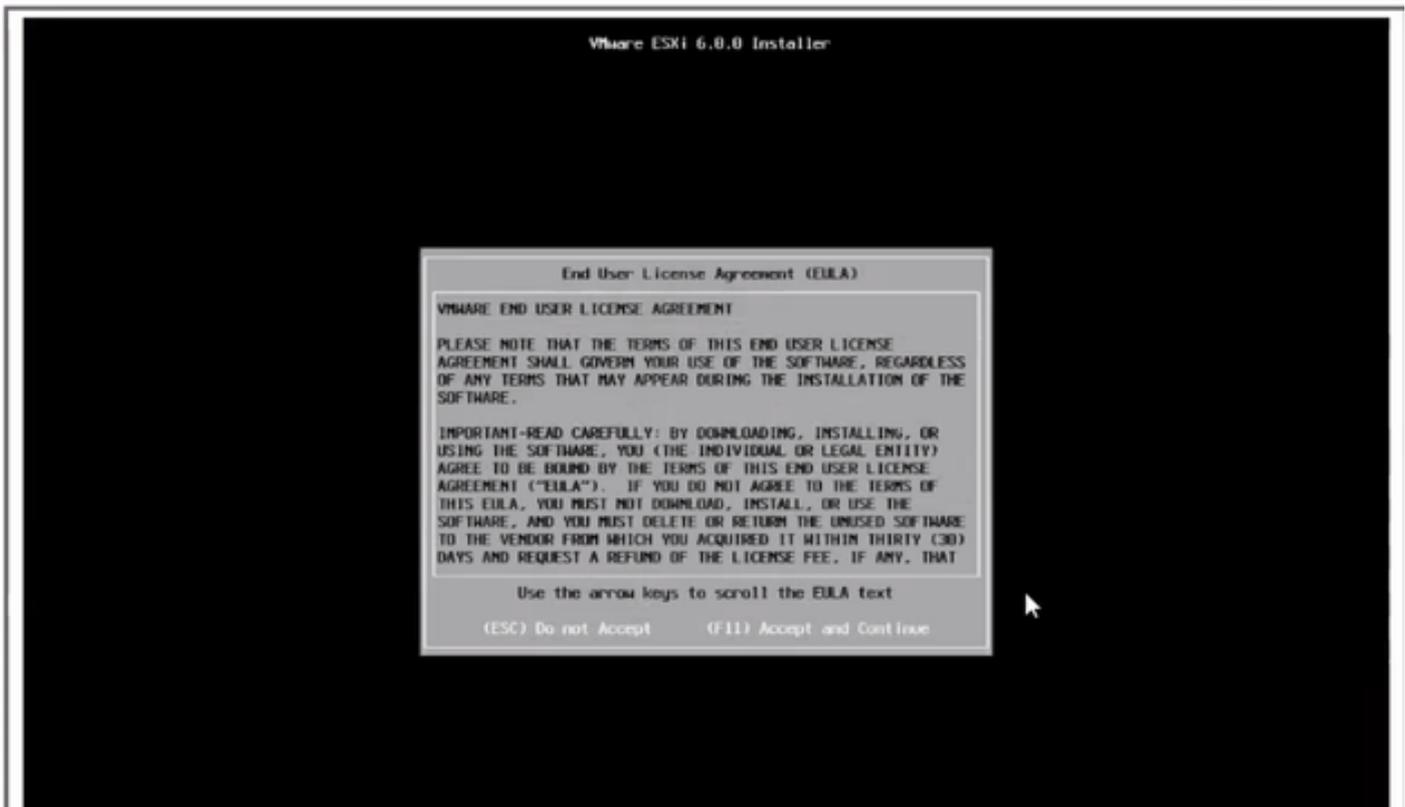
Welcome to the VMware ESXi 6.0.0 Installation

VMware ESXi 6.0.0 installs on most systems but only systems on VMware's Compatibility Guide are supported.

Consult the VMware Compatibility Guide at:
<http://www.vmware.com/resources/compatibility>

Select the operation to perform.

(Esc) Cancel (Enter) Continue



注意：选择您在CIMC中创建的驱动器。

VMware ESXi 6.0.0 Installer

Select a Disk to Install or Upgrade

- * Contains a VMFS partition
- * Claimed by VMware Virtual SAN (VSAN)

St	Lo	Re	Capacity
Scanning...			
Gathering additional information from the selected device. This will take a few moments.			
* Cisco	UCSC-MRAID12G	(naa.6f80bcbeac4190b0217c6...)	1.09 TiB
* Cisco	UCSC-MRAID12G	(naa.6f80bcbeac4190b0217c6...)	1.09 TiB
* Cisco	UCSC-MRAID12G	(naa.6f80bcbeac4190b0217c6...)	1.09 TiB
HITACHI	OPEN-V	(naa.60060e801229eb0050482...)	500.00 GiB

(Esc) Cancel (F1) Details (F5) Refresh (Enter) Continue

VMware ESXi 6.0.0 Installer

ESXi and VMFS Found

- * Cont The selected storage device contains an installation of
- * Clai ESXi and a VMFS datastore. Choose whether to upgrade

or Install and overwrite the existing ESXi
 installation. Also choose whether to preserve or
 overwrite the existing VMFS datastore.

Storage	Capacity
Local:	
(no) (Q) Upgrade ESXi, preserve VMFS datastore	
Remote () Install ESXi, preserve VMFS datastore	.09 TiB
* Cis () Install ESXi, overwrite VMFS datastore	.09 TiB
* Cis	.09 TiB
* Cis Use the arrow keys and spacebar to select an option.	.09 TiB
* Cis	.09 TiB
HIT	.00 GiB

(Esc) Cancel (Enter) OK

(Esc) Cancel (F1) Details (F5) Refresh (Enter) Continue

VMware ESXi 6.0.0 Installer

Please select a keyboard layout

- Swiss French
- Swiss German
- Turkish
- US Default**
- US Dvorak
- Ukrainian
- United Kingdom

Use the arrow keys to scroll.

(Esc) Cancel (F9) Back (Enter) Continue

VMware ESXi 6.0.0 Installer

Enter a root password

Root password:
Confirm password:

Please enter a password.

(Esc) Cancel (F9) Back (Enter) Continue

VMware ESXi 6.0.0 Installer

Confirm Install

The installer is configured to **install** ESXi 6.0.0 on:
naa.6f80bcbeac4198b8217c63651659cbac.

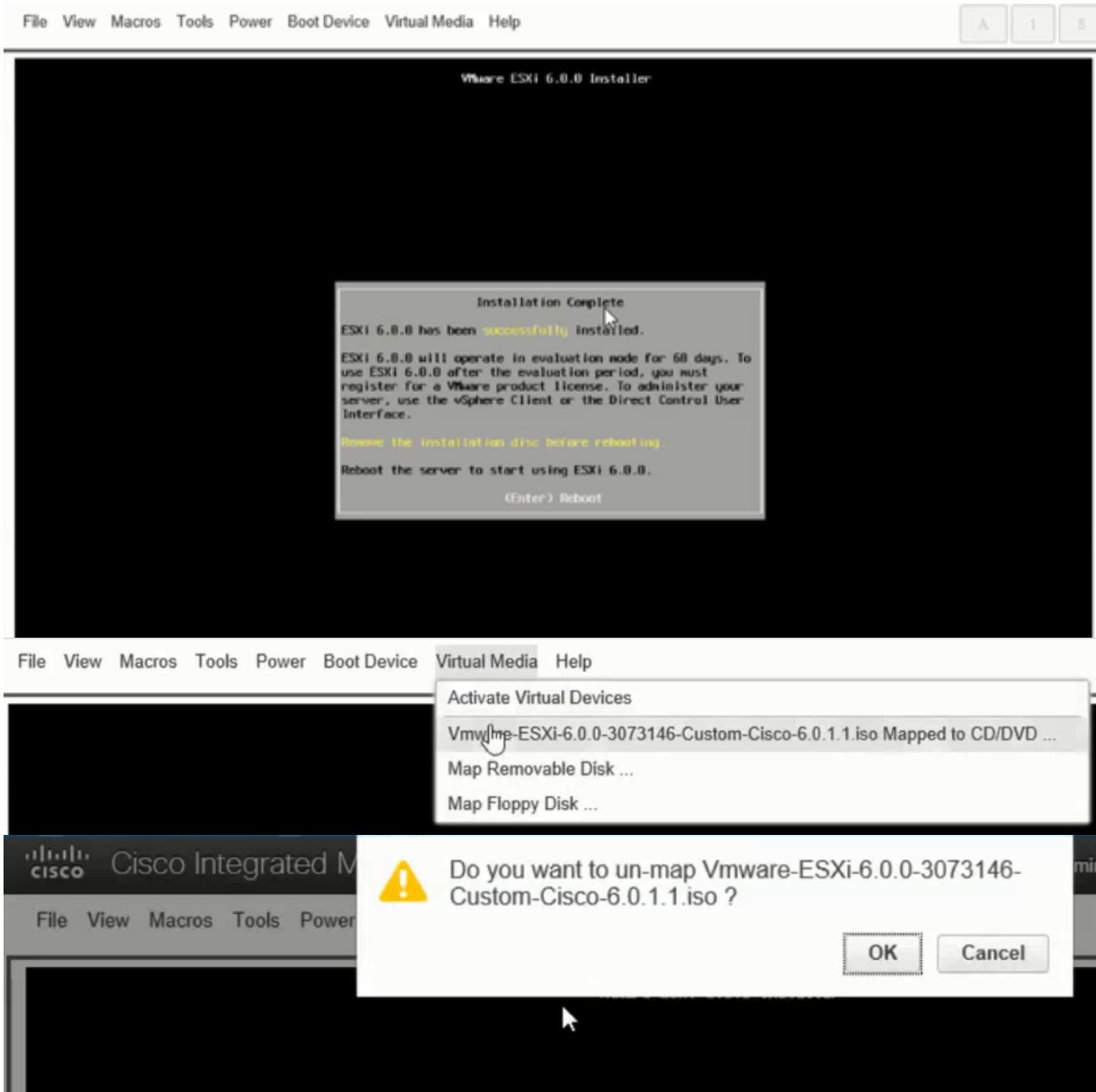
Warning: This disk will be repartitioned.

(Esc) Cancel (F9) Back (F11) Install

VMware ESXi 6.0.0 Installer

Installing ESXi 6.0.0

100 %



步骤6.从DCUI按F2，配置ESXi IP、子网、VLAN（可选），如图所示。

VMware ESXi 6.0.0 (VMKernel Release Build 3073146)
 Cisco Systems Inc UCSC-C240-M5X
 2 x Intel(R) Xeon(R) CPU E5-2668 v3 @ 2.60GHz
 128 GiB Memory

Download tools to manage this host from:
<http://0.0.0.0/>
[http://\[fe80::a23d:6fff:fe80:28261\]/](http://[fe80::a23d:6fff:fe80:28261]/) (STATIC)

<F2> Customize System/View Logs

<F12> Shut Down/Restart

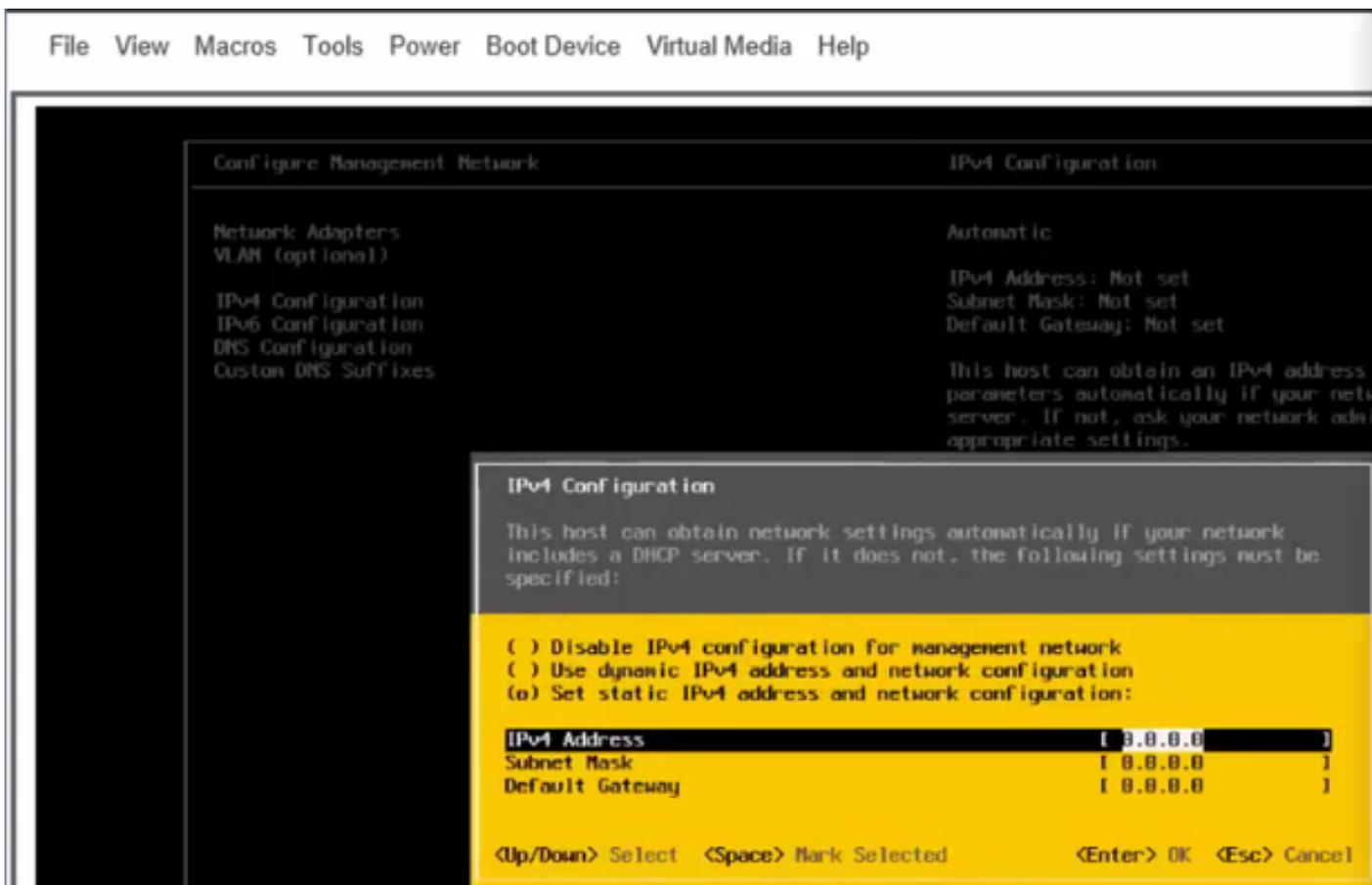
Configure Management Network

- Network Adapters
vLAN (optional)
- IPv4 Configuration**
- IPv6 Configuration
- DNS Configuration
- Custom DNS Suffixes

IPv4 Configuration

Automatic
 IPv4 Address: Not set
 Subnet Mask: Not set
 Default Gateway: Not set

This host can obtain an IPv4 address and other networking parameters automatically if your network includes a DHCP server. If not, ask your network administrator for the appropriate settings.



今后，从Vsphere客户端或Web浏览器访问ESXi IP，并将UC ISO上传到数据存储，以部署VM。

验证

使用本部分可确认配置能否正常运行。

本文的第1部分“CIMC配置”>第9步将介绍验证内容。

故障排除

目前没有针对此配置的故障排除信息。