

# 配置CIMC並在發生災難性故障時在BE6K/7K上安裝ESXi

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## 簡介

本文檔介紹在出現完全硬體故障或完全更換伺服器時，在BE6/7K伺服器上安裝Elastic Sky X Integrated(ESXi)和配置Cisco Integrated Management Controller(CIMC)的過程。本文檔可幫助從頭開始設定伺服器。

## 必要條件

### 需求

思科建議您瞭解以下主題：

- 物理訪問伺服器，以連線鍵盤和顯示器
- 需要訪問鍵盤和顯示器
- 用於連線顯示器和鍵盤的CIMC轉換器
- 在VMware中提供免費帳戶以下載Cisco Customer Image

### 採用元件

本文件所述內容不限於特定軟體和硬體版本。

本文中的資訊是根據特定實驗室環境內的裝置所建立。文中使用到的所有裝置皆從已清除（預設）的組態來啟動。如果您的網路運作中，請確保您瞭解任何指令可能造成的影響。

## 背景資訊

BE6K/7K是套裝解決方案，即ESXi已預安裝在伺服器上。有時，您可能會遇到BE6k/7K問題，您必須更換所有硬碟驅動器(HDD)，或者無法恢復資料，或者虛擬驅動器(VD)發生故障或完全更換伺服

器，然後必須在新硬體上安裝ESXi。本文檔介紹在此類情況下安裝ESXi和配置CIMC要遵循的程式

## 要遵循的流程

過程可以分為兩部分：

第1部分：配置CIMC並建立VD。

1. 使用鍵盤/影片/滑鼠(KVM)轉換器將鍵盤和顯示器連線到統一計算系統(UCS)伺服器的控制檯
2. 開啟伺服器電源
3. 配置CIMC IP
4. 確保所有物理驅動器都處於正常狀態
5. 在RAID 5中建立VD

第2部分：在建立的VD上安裝ESXi。

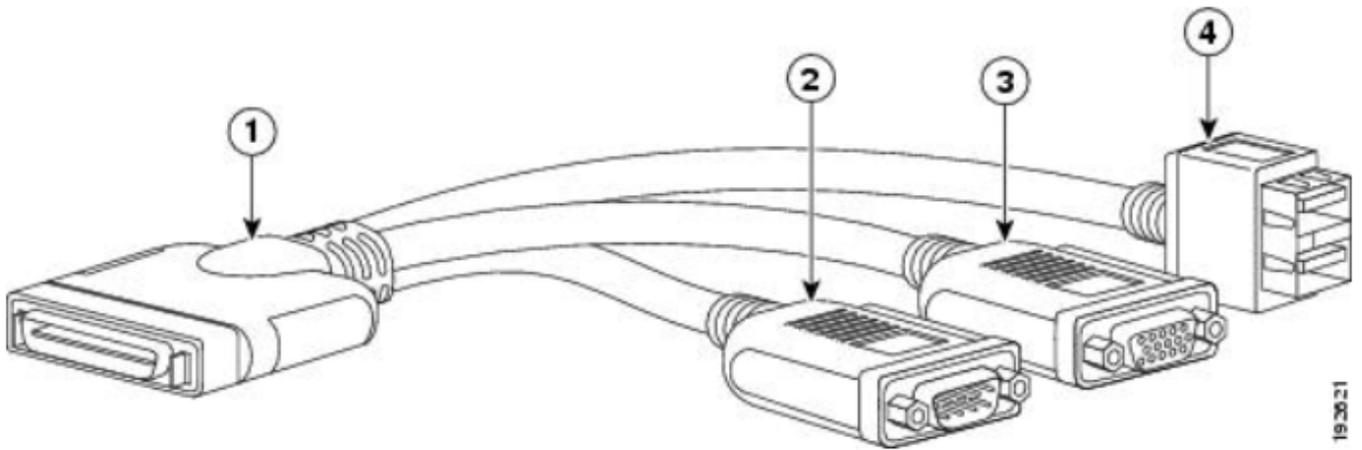
1. 從VMware下載Cisco Custom ISO®
2. 登入CIMC並啟動KVM控制檯。(確保在PC上安裝了JRE)
3. 使用KVM控制檯安裝虛擬ISO
4. 從KVM重新啟動UCS伺服器，啟動時按F6
5. 選擇**Virtual CD/DVD**，然後按Enter
6. 繼續安裝ESXi
7. 在直接控制檯使用者介面(DCUI)中，按F2，配置ESXi IP、子網、VLAN (可選)
8. 從Vsphere客戶端訪問ESXi IP

### 第1部分CIMC配置

螢幕截圖的過程。

步驟1.使用KVM轉換器將鍵盤和顯示器連線到UCS伺服器的控制檯，如下圖所示。

**Figure B-1 KVM Cable**

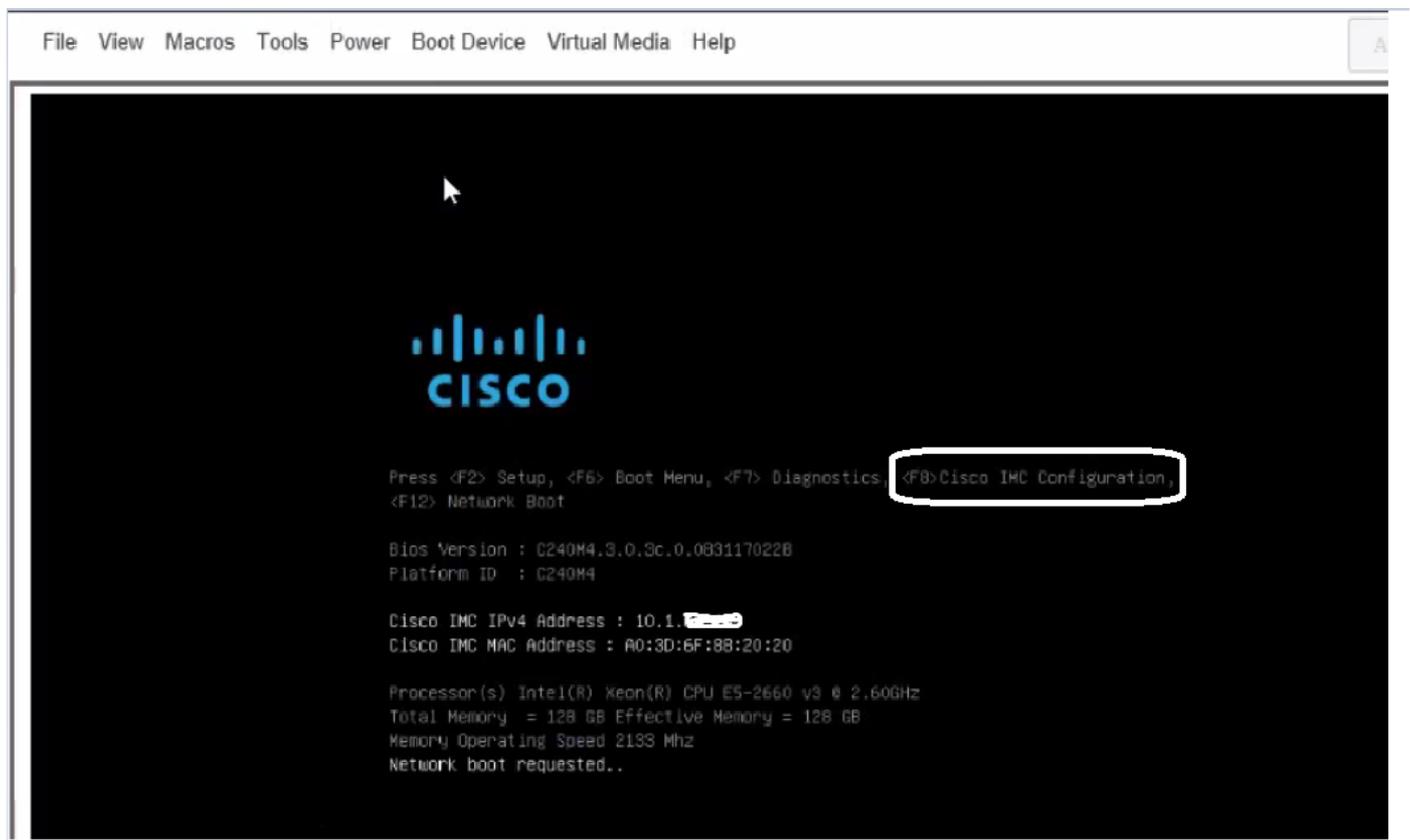


Related image, diagram or screenshot.

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

步驟2.開啟伺服器電源。

步驟3.在「Power On (開機)」閃屏時按下F8，如下圖所示。



步驟4.配置CIMC進行連線，如下圖所示。

進入CIMC實用程式後，您必須配置以下內容：

- CIMC IP地址
- 預設閘道
- 設定CIMC的密碼

```

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:
ULAN (Advanced)
ULAN enabled:       [ ]                Reenter password:
ULAN ID:            1
Priority:           0
*****
<Up/Down arrow> Select items    <F10> Save    <Space bar> Enable/Disable
<F5> Refresh                    <ESC> Exit

```

步驟5.建立VD。

為了建立VD，必須執行以下操作：

1. 啟動CIMC
  2. 導航到儲存
  3. 導覽至Storage > Controller Info
  4. 導覽至Controller Info > Create Virtual Drive from Unused Physical Drives
  5. 選擇Raid為5
  6. 選擇HDD 附註：Raid 5至少需要3個硬碟。
  7. 設定名稱和屬性
  8. 按一下Create Virtual Drive
- 1.從Web瀏覽器啟動CIMC，接受您獲得的所有證書警報（如圖所示）。

### 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

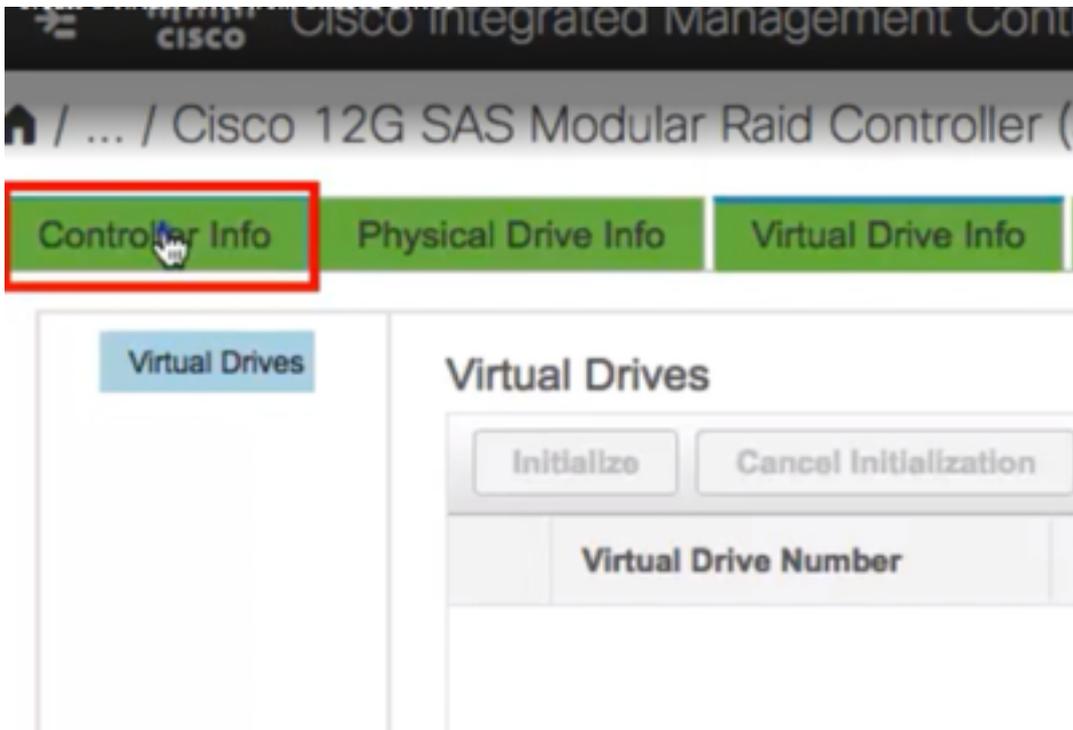
### Server Utilization



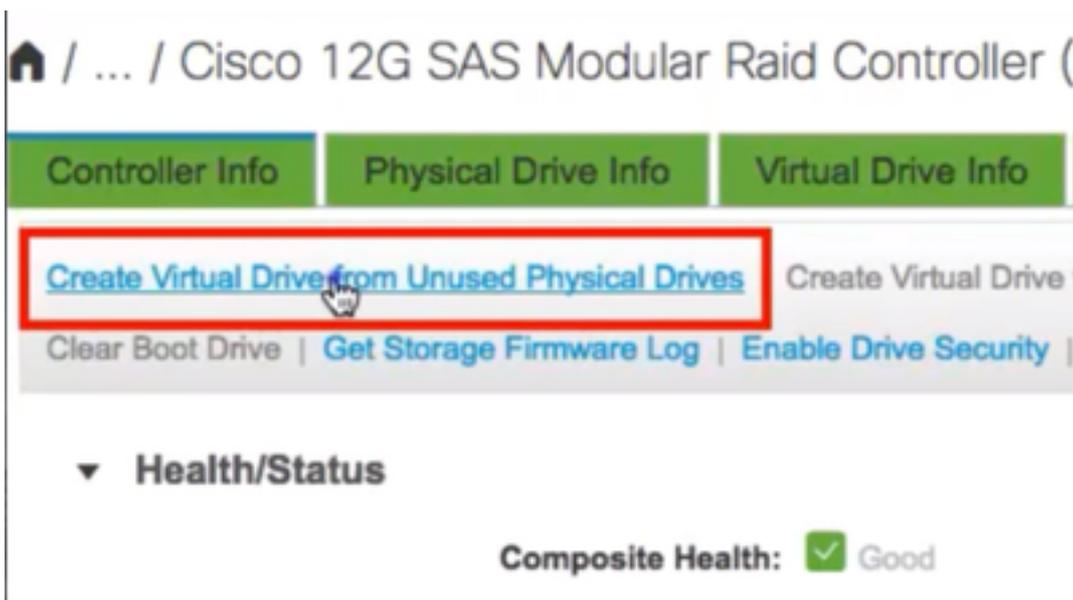
2. 導覽至Storage，如下圖所示。

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 'Home / Chassis / Summary'. The left sidebar contains a menu with the following items: Chassis (with a dropdown arrow), Summary (highlighted in blue), Inventory, Sensors, Power Management, and Faults and Logs. Below these are sections for Compute, Networking, Storage (highlighted with a red box), and Admin. The main content area is titled 'Server Properties' and lists the following information: Product Name: UCS C240 M4L, Serial Number: FCH1850V2PN, PID: UCSC-C240-M4L, UUID: 11953DD2-6F29-4DED-B569-61168CD5A823, and BIOS Version: C240M4.3.0.0.10.1026161038. There are input fields for 'Description' and 'Asset Tag' (currently showing 'Unknown'). Below this is the 'Chassis Status' section, which shows the following status indicators: Power State: On (green circle), 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 circle), and Overall Storage Status: Good (green checkmark).

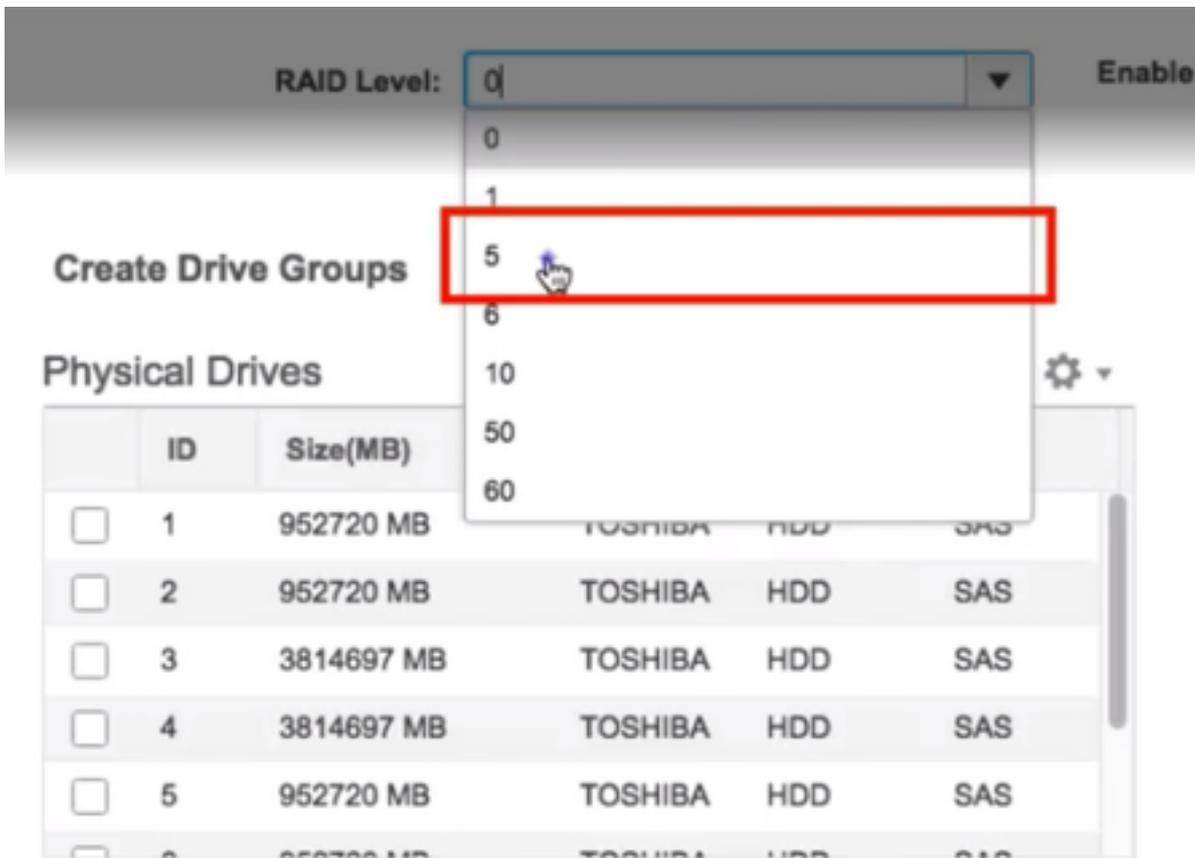
3. 導覽至Storage > Controller Info , 如下圖所示。



4. 導覽至Controller Info > Create Virtual Drive from Unused Physical Drives，如下圖所示。



5. 從下拉選項中選擇RAID級別為5，如下圖所示。



6.選擇HDD，如下圖所示。

附註：Raid 5至少需要3個硬碟。



7.如圖所示設定「名稱」和「屬性」。

8.按一下「Create Virtual Drive」，如下圖所示。

### Virtual Drive Properties

Name: RAID5\_123

Access Policy: Read Write

Read Policy: No Read Ahead

Cache Policy: Direct IO

Disk Cache Policy: Unchanged

Write Policy: Write Through

Strip Size (MB): 64k

Size: 1905440 MB

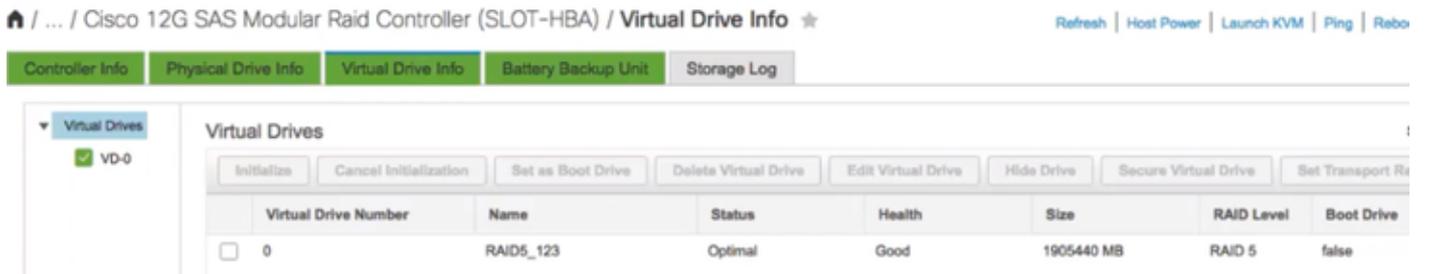
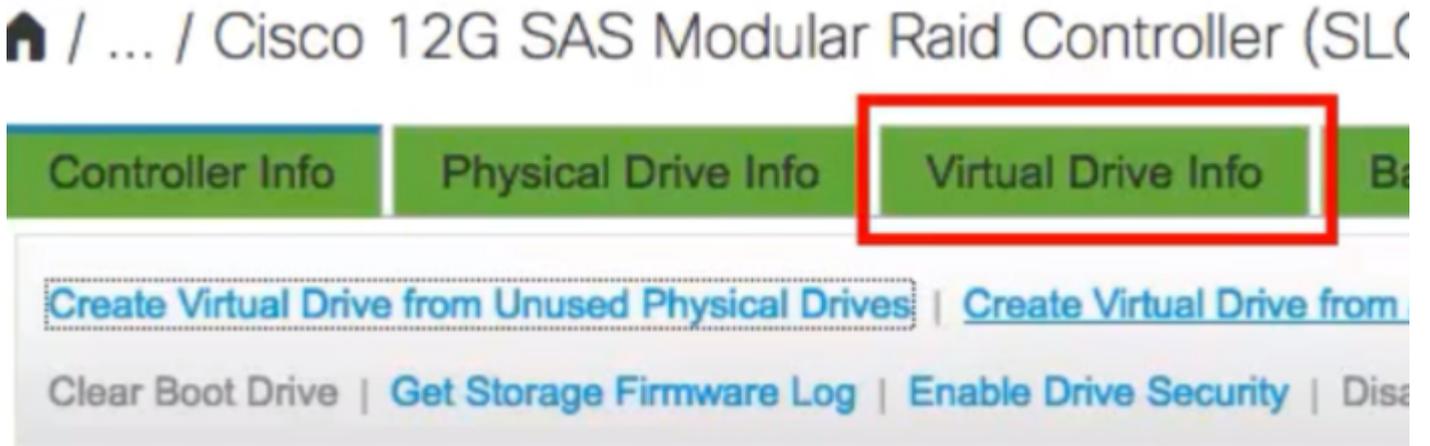
[952720 : 1905440]

Generate XMLAPI Request

**Create Virtual Drive**

Close

9. 驗證是否已建立驅動器，如下圖所示。

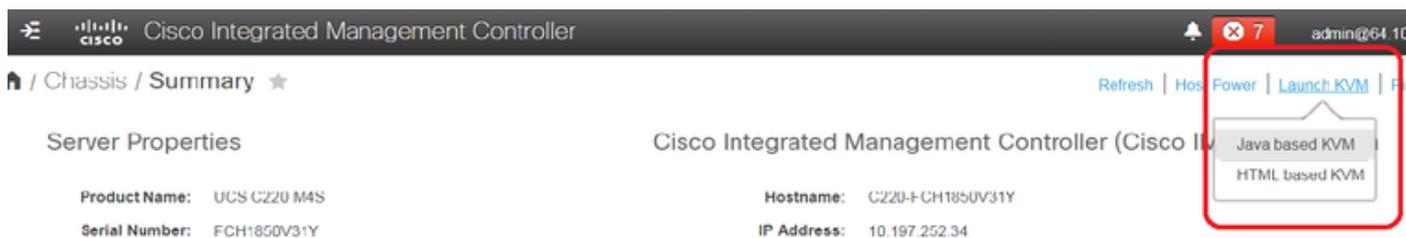


## 第2部分。ESXi安裝

步驟1. 從VMware下載Cisco Custom ISO®，如下圖所示。

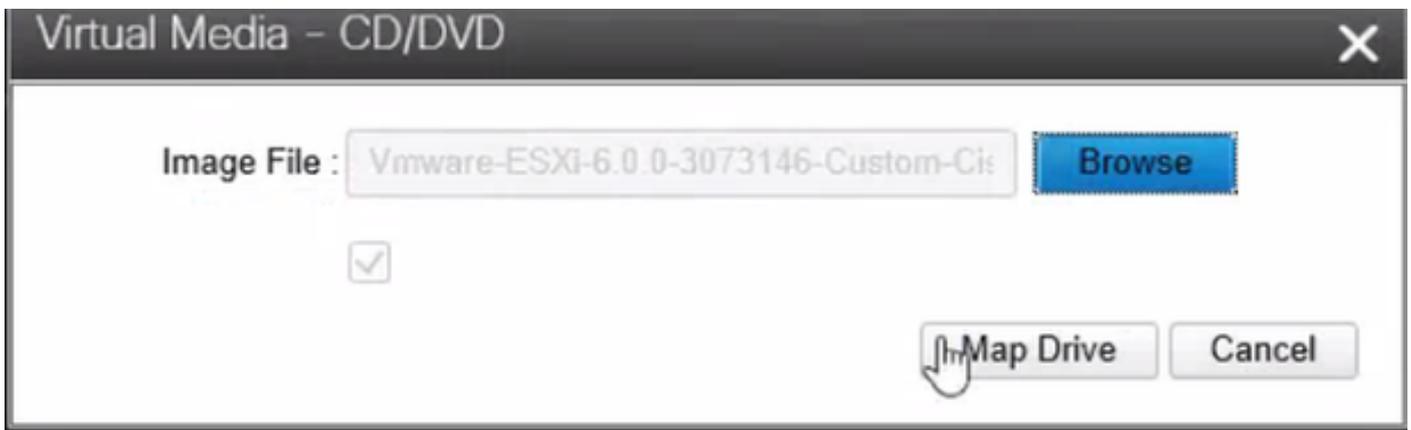


步驟2. 登入CIMC並啟動KVM控制檯。( 如果使用基於Java的，請確保在PC上安裝了JRE 1.7或更高版本 )。 在這種情況下，使用基於HTML的KVM，如下圖所示。

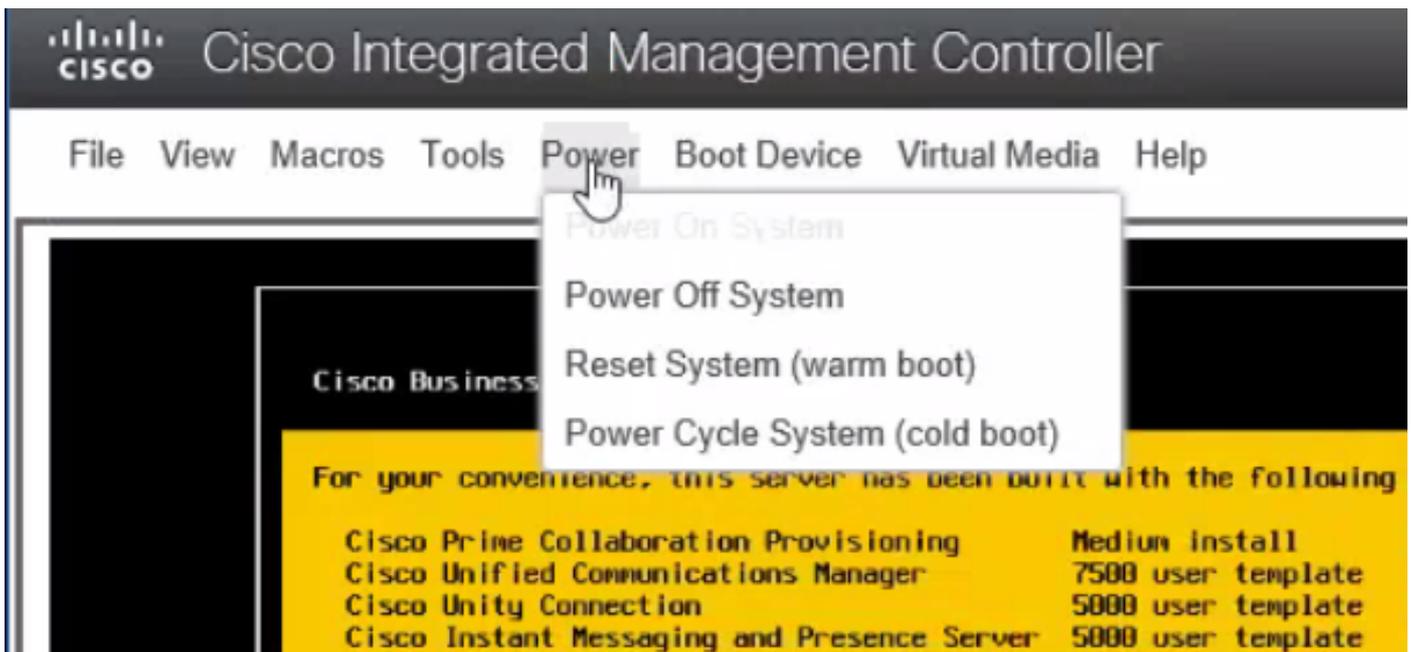


步驟3. 使用KVM控制檯安裝虛擬ISO，如下圖所示。



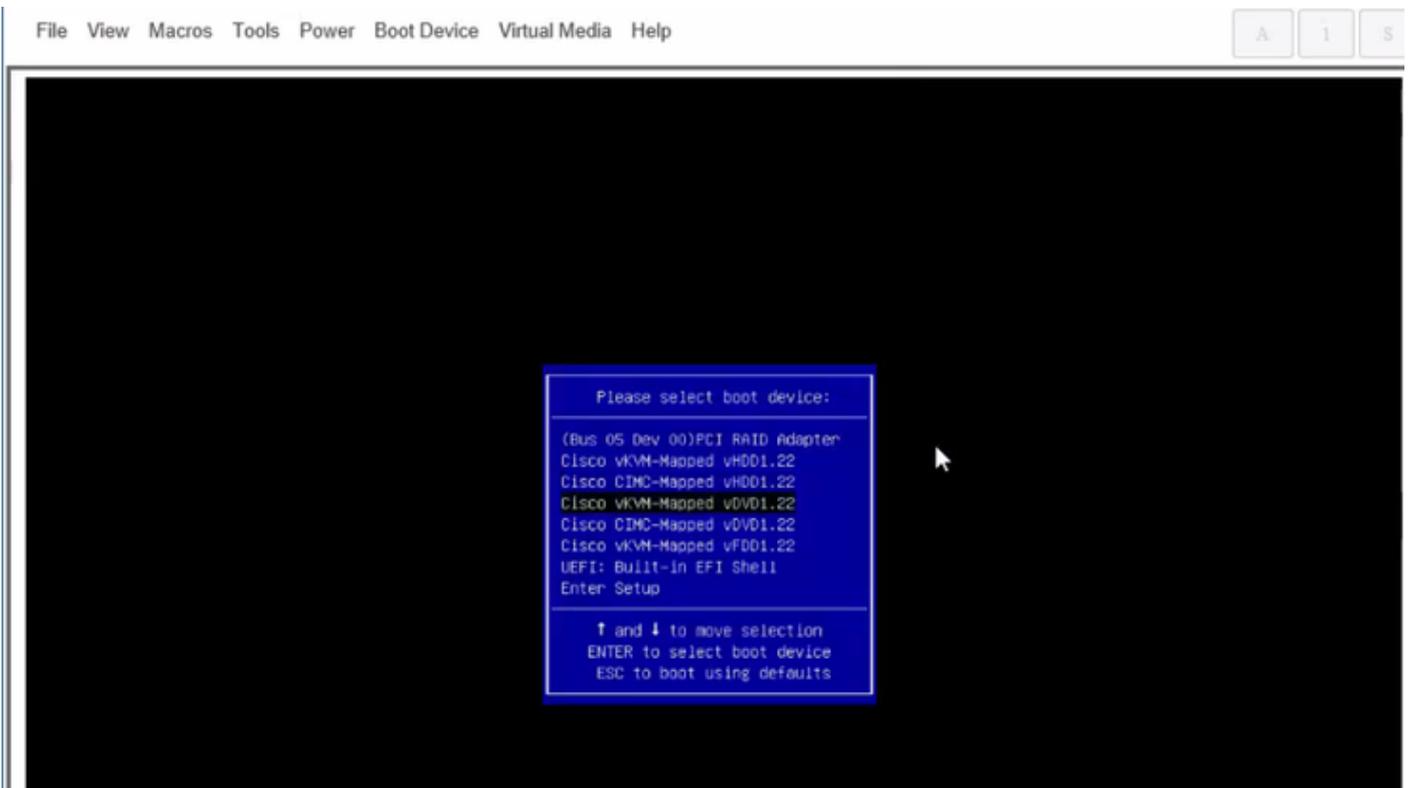


步驟4.從KVM重新啟動UCS伺服器，在啟動時按F6，如下圖所示。





步驟5.選擇Virtual CD/DVD Option，然後按Enter，如下圖所示。



步驟6.如圖所示繼續安裝ESXi。

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

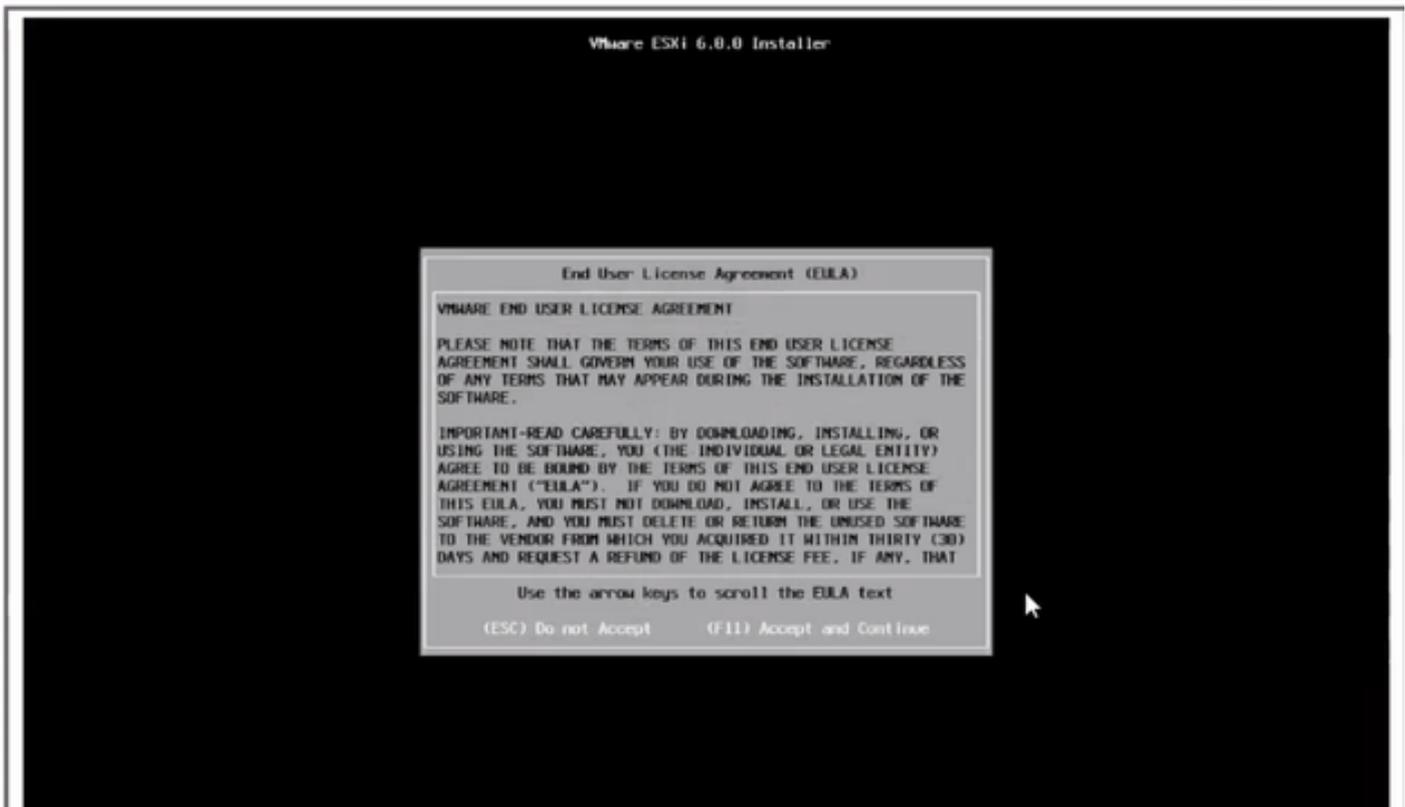
Welcome to the VMware ESXi 6.0.0 Installation

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



附註：選擇您在CIMC中建立的驅動器。

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	
* 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.

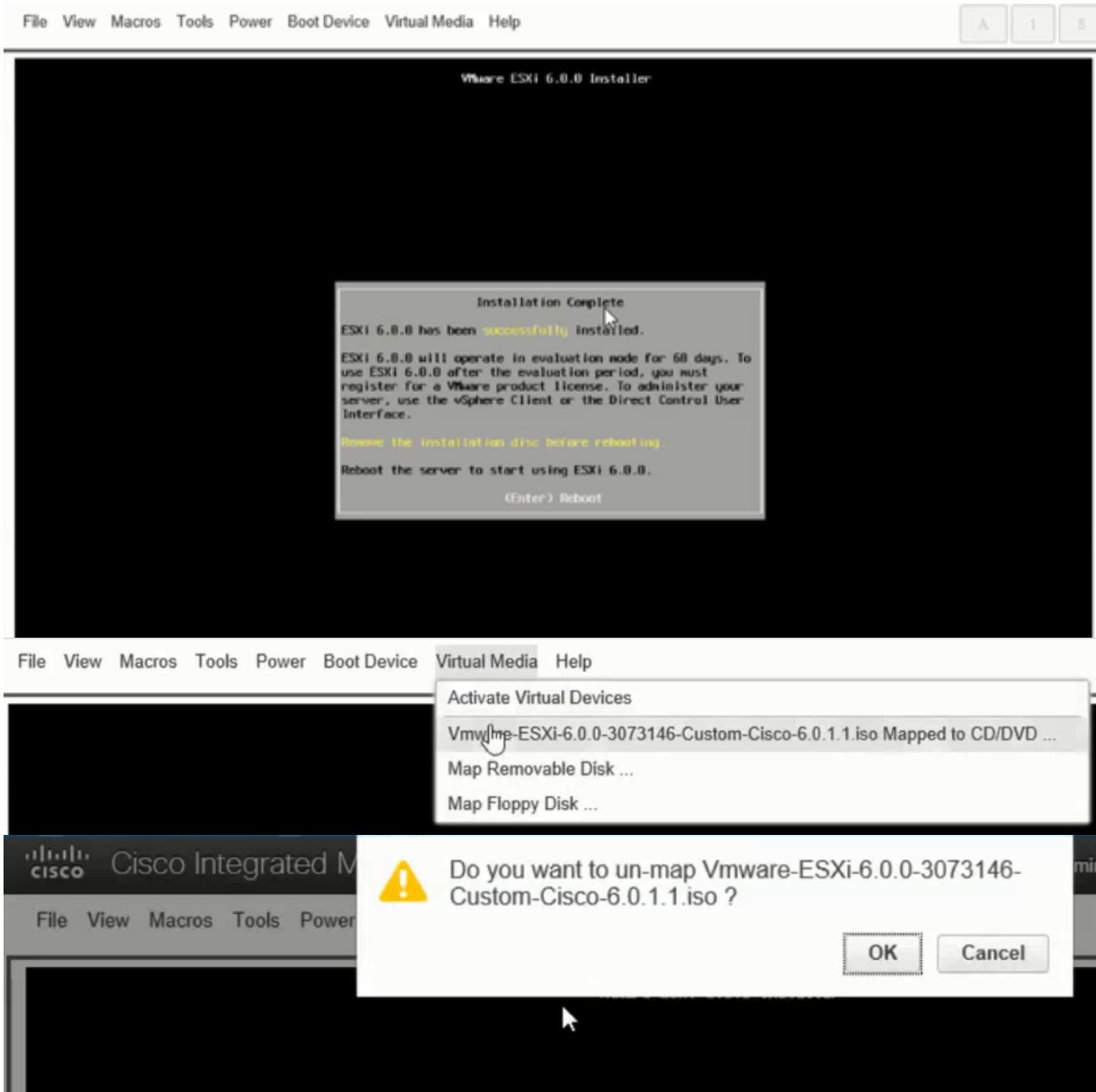
Warning: This disk will be repartitioned.

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

VMware ESXi 6.0.0 Installer

Installing ESXi 6.0.0

100 %



步驟6.從DCUI按F2配置ESXi IP、子網、VLAN（可選），如下圖所示。

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)

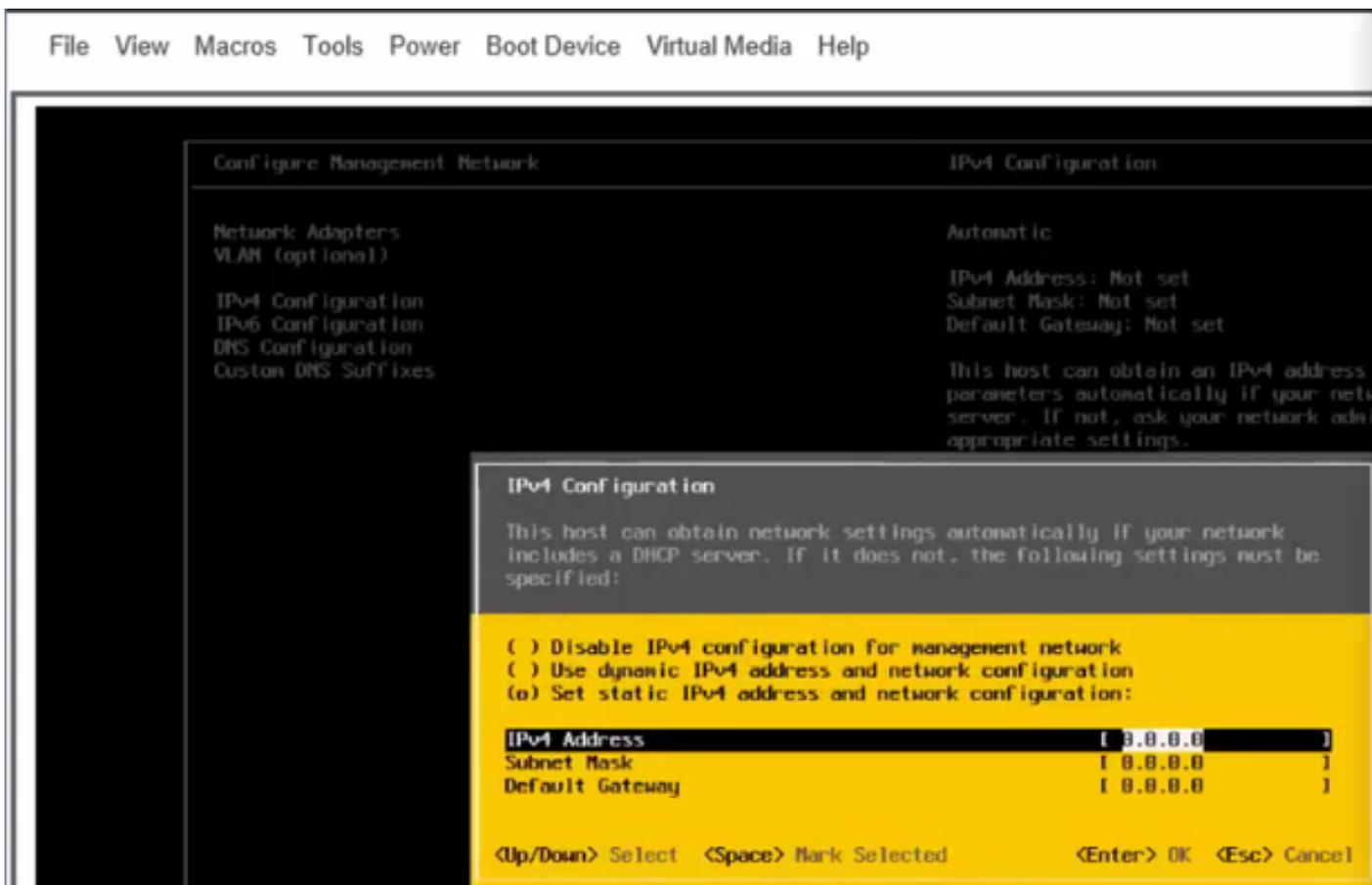
**IPv4 Configuration**  
 IPv6 Configuration  
 DNS Configuration  
 Custom DNS Suffixes

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.



此後，從Vsphere客戶端或Web瀏覽器訪問ESXi IP並將UC ISO上傳到資料儲存區以部署VM。

## 驗證

使用本節內容，確認您的組態是否正常運作。

驗證工作請參閱本文的第1部分。CIMC配置>步驟9。

## 疑難排解

目前尚無適用於此組態的具體疑難排解資訊。