

将集成UCS C系列服务器配置为独立模式

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简介

本文档介绍如何将集成到UCS Manager中的UCS-C系列服务器配置为独立模式并重新映像其固件版本。

先决条件

要求

Cisco 建议您了解以下主题：

- 对统一计算系统服务器(UCS)的基本了解
- 对UCS Manager (UCSM)的基本了解
- 基本了解思科集成管理控制器(CIMC)
- 对网络的基本了解。

使用的组件

本文档不限于特定的软件版本。

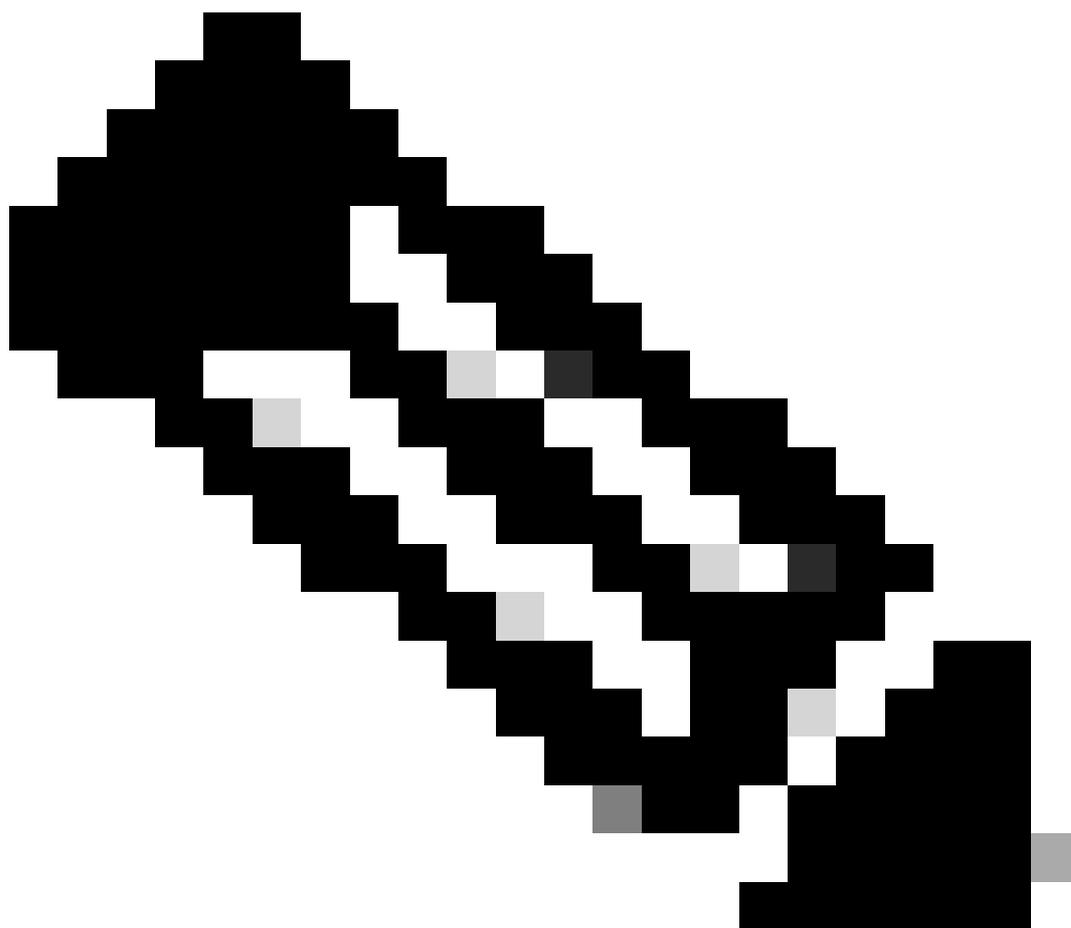
本文档中的信息都是基于特定实验室环境中的设备编写的。本文档中使用的所有设备最初均采用原始（默认）配置。如果您的网络处于活动状态，请确保您了解所有命令的潜在影响。

背景信息

在尝试进行此配置之前，请确保满足以下要求。

- 连接到C系列服务器的计算机。
- KVM电缆
- 监控
- 键盘
- 1G电缆连接到管理端口

配置



注意：没有TAC建议，请勿执行此过程。

将服务器置于独立模式



警告：在开始此过程之前，请确保服务器已关闭。

步骤1:停用服务器

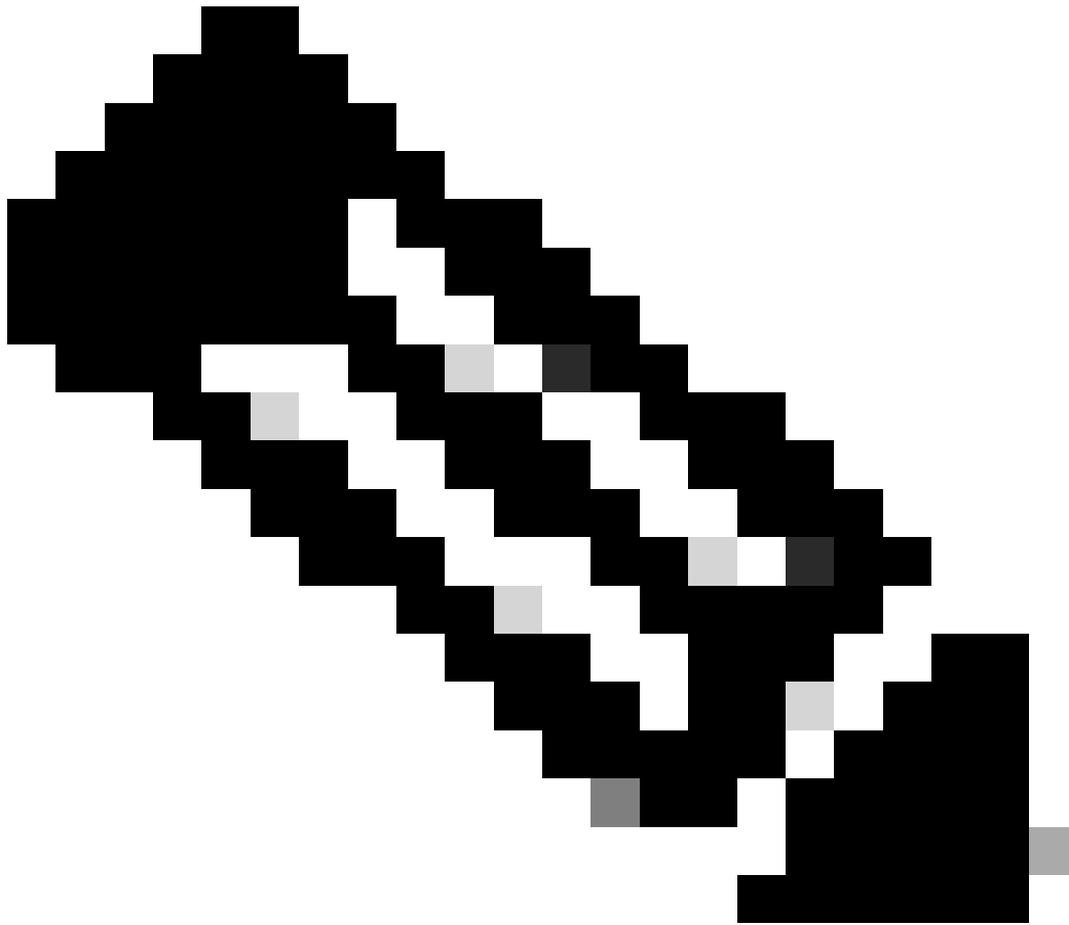
转到UCS Manager Web界面。

导航到设备 > 机架安装 > 服务器x

The screenshot shows a web-based management console for server equipment. On the left is a navigation sidebar with categories like Equipment, Rack-Mounts, Servers, Fabric Interconnects, and Policies. The 'Servers' section is expanded, showing 'Server 1' selected. The main content area is titled 'Equipment / Rack-Mounts / Servers / Server 1' and has tabs for 'General', 'Inventory', 'Virtual Machines', 'Hybrid Display', 'Installed Firmware', 'SEL Logs', and 'CIMC Ses'. Under the 'General' tab, there is a 'Fault Summary' section with four icons representing different fault types and counts: a red 'X' (0), a red 'V' (0), a yellow triangle (1), and a green circle (1). Below this is a 'Status' section showing 'Overall Status : Power Off' and a 'Status Details' button. The 'Actions' section contains a list of operations: 'Create Service Profile', 'Associate Service Profile', 'Set Desired Power State', 'Boot Server', 'Shutdown Server', 'Reset', 'Recover Server', 'Server Maintenance' (highlighted with a red box), 'KVM Console >>', 'SSH to CIMC for SoL >>', and 'Turn on Locator LED'. On the right side, there is a 'Physical Display' image of a server rack and a 'Properties' section with various fields like ID, Product Name, Vendor, etc.

单击Server Maintenance并选择Decommission

The dialog box is titled 'Maintenance Server 1' and contains the following text: 'You are attempting to perform server maintenance. Please select a maintenance task:'. Below this text is a list of five radio button options: 'Remove', 'Re-acknowledge', 'Decommission', 'Diagnostic Interrupt', and 'Reset to Factory Default'. The 'Decommission' option is selected, indicated by a filled radio button. At the bottom right of the dialog are two buttons: 'OK' and 'Cancel'.



注意：如果服务器已停用，则不会显示在机架安装上，而是显示在Equipment > Decommitted > Rack-Mounts下

第二步：取消配置服务器端口

导航到设备>交换矩阵互联>交换矩阵互联A > 固定模块> 以太网端口> 端口x。

单击Unconfigure。

Equipment / Fabric Interconnects / Fabric Interconnect A (subordin... / Fixed Module / Ethernet Ports / Port 4

General | Faults | Events | FSM | Statistics

Fault Summary

0 1 0 0

Status

Overall Status : **Link Down**

Additional Info : **Link failure or not-connected**

Admin State : **Enabled**

Actions

Enable Port

Disable Port

Reconfigure

Unconfigure

Show Interface

Physical Display

Properties

ID : 4 Slot ID : 1

User Label :

MAC : 00:2A:6A:25:7E:4B

Mode : Trunk

Port Type : Physical Role : Server

Transceiver

Type : H10GB CU1M

Model : 1-2053783-1

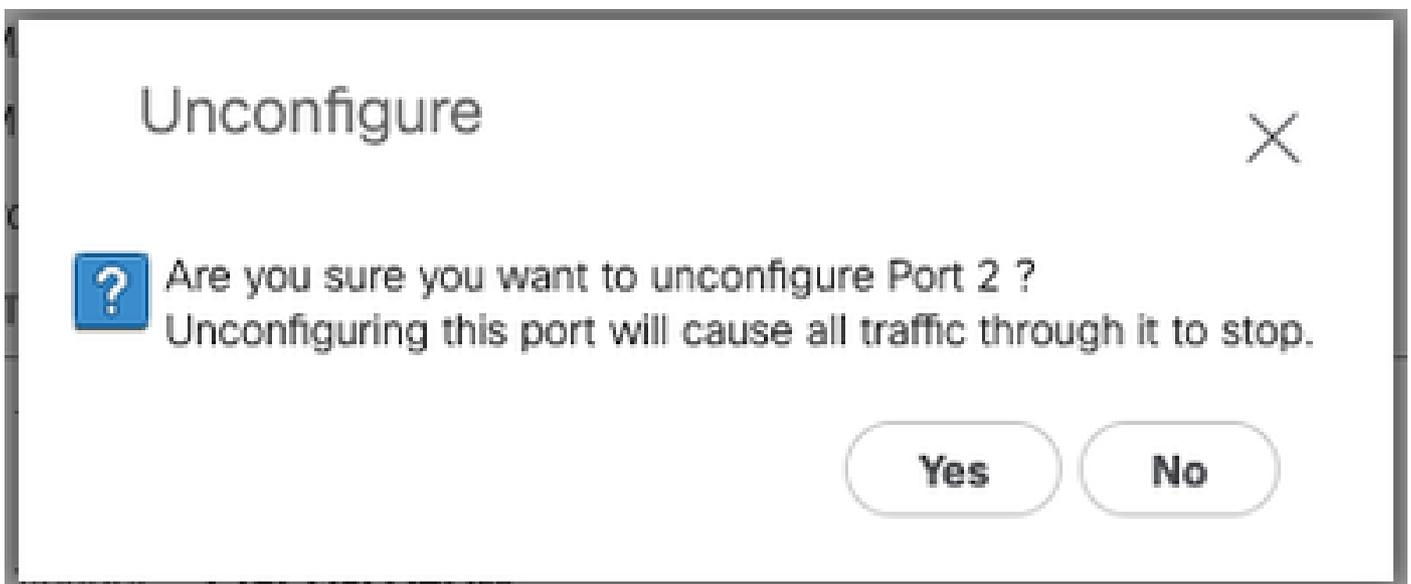
Vendor : CISCO-FYCO

Serial : TED2433A1P6

License Details

License State : License OK

License Grace Period : 0



对交换矩阵互联B重复相同的步骤

导航到设备>交换矩阵互联>交换矩阵互联B > 固定模块> 以太网端口> 端口x。

单击Unconfigure。

第三步：将CIMC更改为默认设置

关闭服务器电源并拔下电源线。

等待2分钟，然后再次连接电源线。

使用显示器和键盘将KVM电缆连接到服务器。

监控服务器启动过程，直到您到达Cisco菜单并按F8进入Cisco IMC配置实用程序。



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Press <F2> BIOS Setup : <F6> Boot Menu : <F7> Diagnostics

Press <F8> CIMC Setup : <F12> Network Boot

Bios Version : C240M5.4.2.2b.0.0613220203

Platform ID : C240M5

/ Loading Marvell SCSI Driver 1.1.17.1002

Processor(s) Intel(R) Xeon(R) Gold 6230 CPU @ 2.10GHz

Total Memory = 128 GB Effective Memory = 128 GB

Memory Operating Speed 2933 Mhz

M.2 SWRAID configuration is not detected. Switching to AHCI mode.

Cisco IMC IPv4 Address : 10.31.123.32

Cisco IMC MAC Address : 7C:31:0E:9F:12:80

Entering CIMC Configuration Utility ...

Cisco IMC Configuration Utility Version 2.0 Cisco Systems, Inc.

NIC Properties

NIC mode		NIC redundancy	
Dedicated:	<input checked="" type="checkbox"/>	None:	<input checked="" type="checkbox"/>
Shared OCP:	<input type="checkbox"/>	Active-standby:	<input type="checkbox"/>
Cisco Card:		Active-active:	<input type="checkbox"/>
Riser1:	<input type="checkbox"/>	VLAN (Advanced)	
Riser3:	<input type="checkbox"/>	VLAN enabled:	<input type="checkbox"/>
MLom:	<input type="checkbox"/>	VLAN ID:	1
Shared OCP Ext:	<input type="checkbox"/>	Priority:	0

IP (Basic)

IPv4:	<input checked="" type="checkbox"/>	IPv6:	<input type="checkbox"/>
DHCP enabled	<input type="checkbox"/>		
CIMC IP:	1.1.1.11		
Prefix/Subnet:	255.255.255.0		
Gateway:	1.1.1.1		
Pref DNS Server:	1.1.1.2_		

Smart Access USB

Enabled

<Up/Down>Selection <F10>Save <Space>Enable/Disable <F5>Refresh <ESC>Exit
<F1>Additional settings

按F1并启用出厂默认设置。

```
Cisco IMC Configuration Utility Version 2.0 Cisco Systems, Inc.
*****
Common Properties
Hostname:      C220-WZP26360761
Dynamic DNS:   [X]
DDNS Domain:
FactoryDefaults
Factory Default: [X]
Default User(Admin)
Enter New Default User password:
Re-Enter New Default User password:
Port Properties
Auto Negotiation: [X]
Admin Mode      Operation Mode
Speed [1000/100/10Mbps]: Auto      1000
Duplex mode [half/full]: Auto      full
Port Profiles
Reset: [ ]
Name:
*****
<Up/Down>Selection  <F10>Save  <Space>Enable/Disable  <F5>Refresh  <ESC>Exit
<F2>Previous Page
```

按F10保存更改并重新启动服务器。

第四步：将CIMC配置为独立模式

监控服务器启动过程，直到您到达Cisco菜单并按F8再次进入Cisco IMC配置实用程序。

应用下一个配置：

- 选择的NIC模式为专用
- IP到IPV4
- CIMC IP，其IP地址与您的计算机位于同一子网中。
- NIC冗余到无
- 无 VLAN

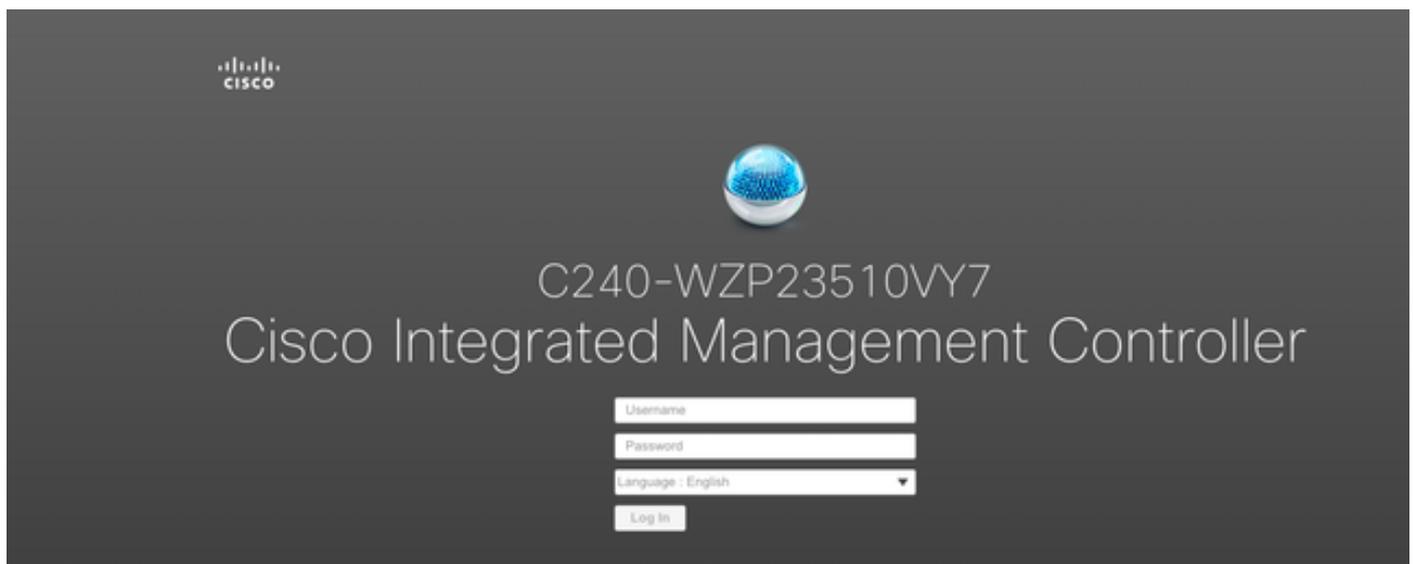
Cisco IMC Configuration Utility Version 2.0 Cisco Systems, Inc.

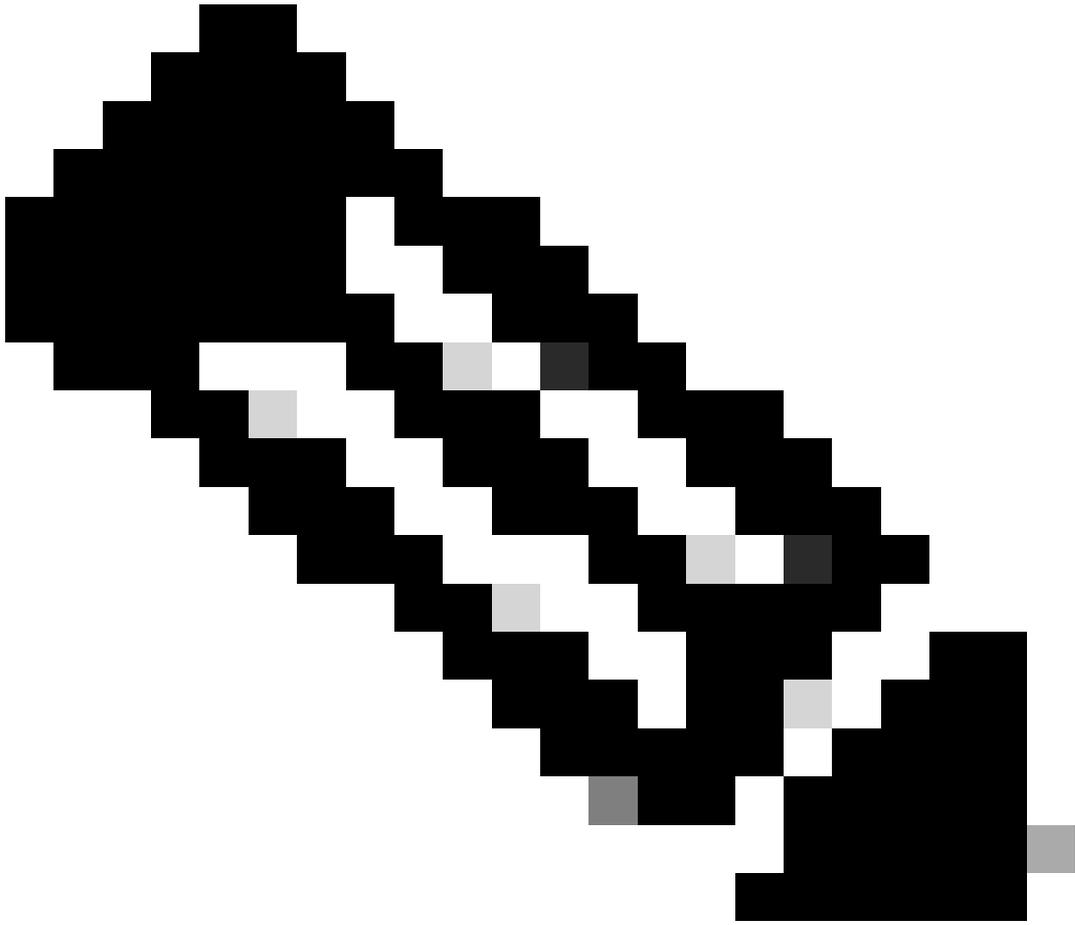
```
*****
NIC Properties
NIC mode                               NIC redundancy
Dedicated:      [X]                   None:           [X]
Shared OCP:     [ ]                   Active-standby: [ ]
Cisco Card:
  Riser1:       [ ]                   Active-active:  [ ]
  Riser3:       [ ]                   VLAN (Advanced)
  MLom:         [ ]                   VLAN enabled:  [ ]
Shared OCP Ext: [ ]                   VLAN ID:       1
                                           Priority:      0
IP (Basic)
IPV4:           [X]                   IPV6:          [ ]
DHCP enabled    [ ]
CIMC IP:        11.11.11.11
Prefix/Subnet:  255.255.255.0
Gateway:        11.11.11.1
Pref DNS Server:
Smart Access USB
Enabled         [ ]
*****
<Up/Down>Selection  <F10>Save  <Space>Enable/Disable  <F5>Refresh  <ESC>Exit
<F1>Additional settings
```

按F10保存更改并重新启动服务器。

将计算机连接到服务器的物理管理端口并打开Web浏览器。

使用您配置的IP <https://x.x.x.x>





注意：admin用户的默认密码是密码

CIMC提示视图和当前CIMC版本

Server Properties

Product Name: UCS C240 MSSD
Serial Number: WZP23510VY7
PID: UCSC-C240-MSSD
UUID: F0E2F2ED-AD46-4328-8E14-C3E1970B9539
BIOS Version: C240M5.4.2.2b.0.0613220203
Description:
Asset Tag: Unknown

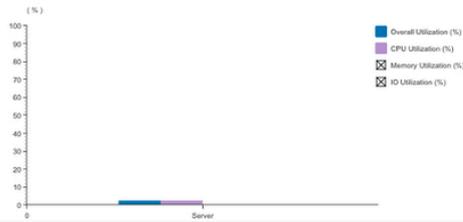
Cisco Integrated Management Controller (Cisco IMC) Information

Hostname: C240-WZP23510VY7
IP Address: 10.28.108.88
MAC Address: 7C:31:0E:9F:12:80
Firmware Version: 4.2(2a)
Current Time (UTC): Mon Sep 25 03:04:40 2023
Local Time: Mon Sep 25 03:04:40 2023 UTC +0000 (NTP)
Timezone: UTC [Select Timezone](#)

Chassis Status

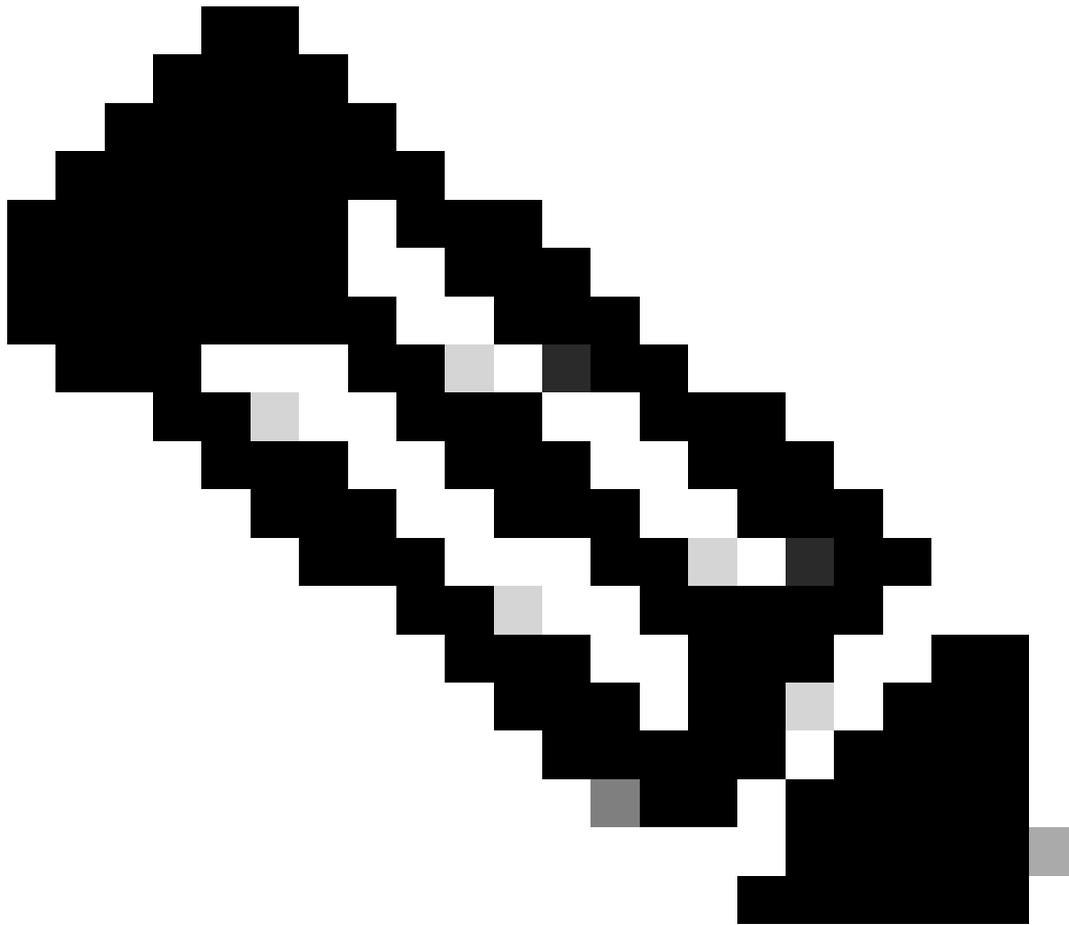
- Power State: On
- Post Completion Status: Completed
- Overall Server Status: Good
- Temperature: Good
- Overall DIMM Status: Good
- Power Supplies: Good
- Fans: Good
- Locator LED: Off
- Overall Storage Status: Good

Server Utilization



Save Changes | Reset Values

重新映像固件版本



注意：如果您的服务器已集成回UCSM中，则强烈建议重新映像固件版本

步骤1:下载主机升级实用程序(HUU) ISO。

重新映像通过HUU完成。可以从[思科下载页](#)下载HUU ISO

第二步：启动KVM并映射HUU ISO。

下载当前版本的HUU后，转至CIMC并点击Launch KVM

The screenshot displays the Cisco Integrated Management Controller (CIMC) web interface. The top navigation bar includes the Cisco logo and the text "Cisco Integrated Management Controller". The user is logged in as "admin@...". The main content area is divided into several sections:

- Server Properties:** Lists details such as Product Name (UCS C240 MSSD), Serial Number (WZP23510VY7), PID (UCSC-C240-MSSD), UUID (F0E2F2ED-AD46-4328-8E14-C3E1970B9539), BIOS Version (C240M5.4.2.2b.0.0613220203), Description, and Asset Tag (Unknown).
- Cisco Integrated Management Controller (Cisco IMC) Information:** Displays Hostname (C240-WZP23510VY7), IP Address, MAC Address (7C:31:0E:9F:12:80), Firmware Version (4.2(2a)), Current Time (UTC), Local Time (Mon Sep 25 03:04:40 2023 UTC +0000 (NTP)), and Timezone (UTC).
- Chassis Status:** Shows various status indicators: Power State (On), Post Completion Status (Completed), Overall Server Status (Good), Temperature (Good), Overall DIMM Status (Good), Power Supplies (Good), Fans (Good), Locator LED (Off), and Overall Storage Status (Good).
- Server Utilization:** A bar chart showing utilization percentages for Overall Utilization (%), CPU Utilization (%), Memory Utilization (%), and IO Utilization (%).

The "Launch vKVM" button is highlighted with a red box in the top navigation bar. At the bottom right, there are "Save Changes" and "Reset Values" buttons.

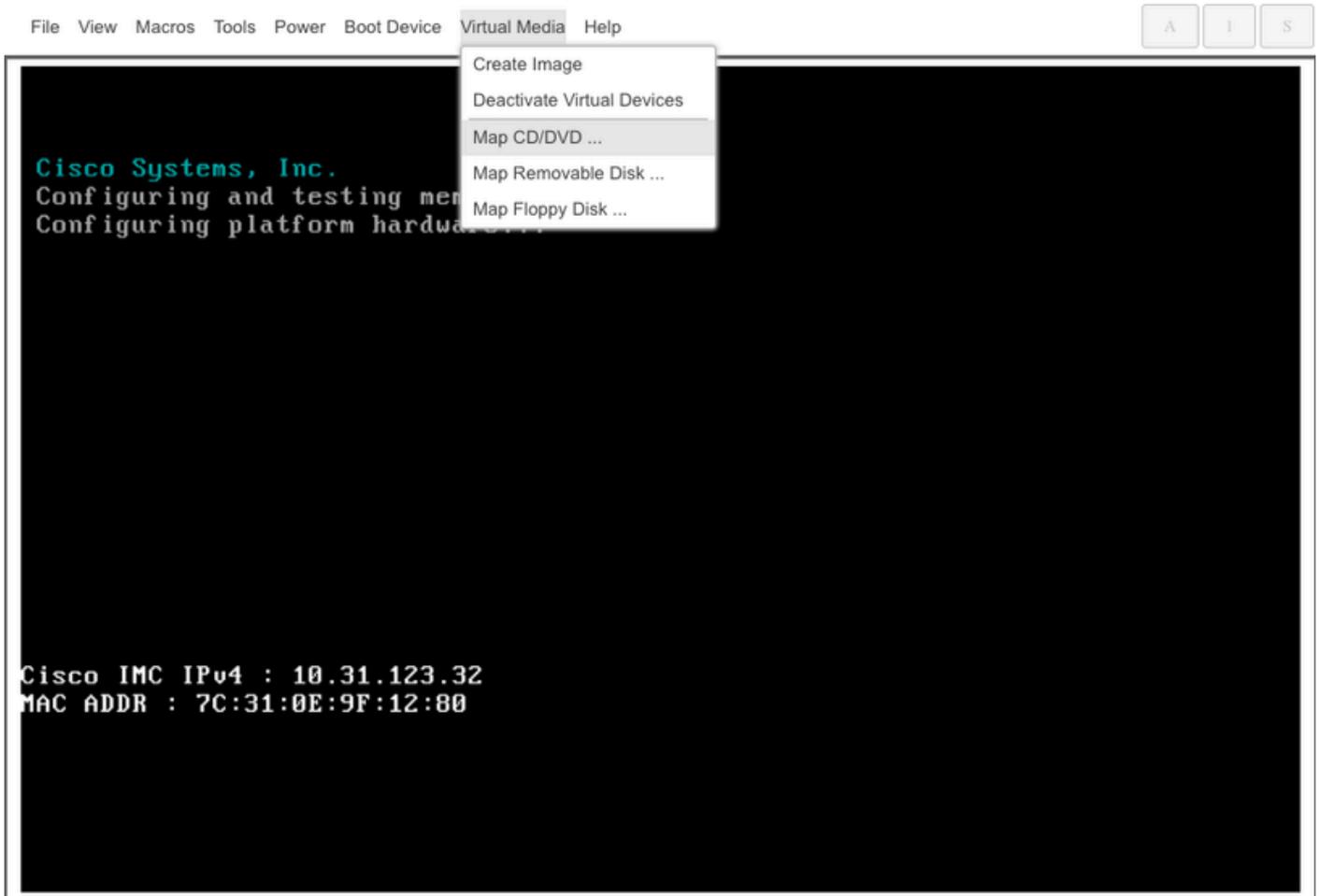
启动vKVM后，点击虚拟媒体并激活虚拟设备

Create Image
Activate Virtual Devices

```
Cisco Systems, Inc.  
Configuring and testing memory..
```

```
Cisco IMC IPv4 : 10.31.123.32  
MAC ADDR : 7C:31:0E:9F:12:80
```

Map CD/DVD上的Map HUU



第三步：使用HUU ISO启动。

监控服务器启动过程，直到您到达Cisco菜单并按F6进入启动菜单。



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Press <F2> BIOS Setup : <F6> Boot Menu : <F7> Diagnostics
Press <F8> CIMC Setup : <F12> Network Boot
Bios Version : C240M5.4.2.2b.0.0613220203
Platform ID : C240M5

Processor(s) Intel(R) Xeon(R) Gold 6230 CPU @ 2.10GHz
Total Memory = 128 GB Effective Memory = 128 GB
Memory Operating Speed 2933 Mhz
M.2 SWRAID configuration is not detected. Switching to AHCI mode.

Cisco IMC IPv4 Address : 10.31.123.32
Cisco IMC MAC Address : 7C:31:0E:9F:12:80

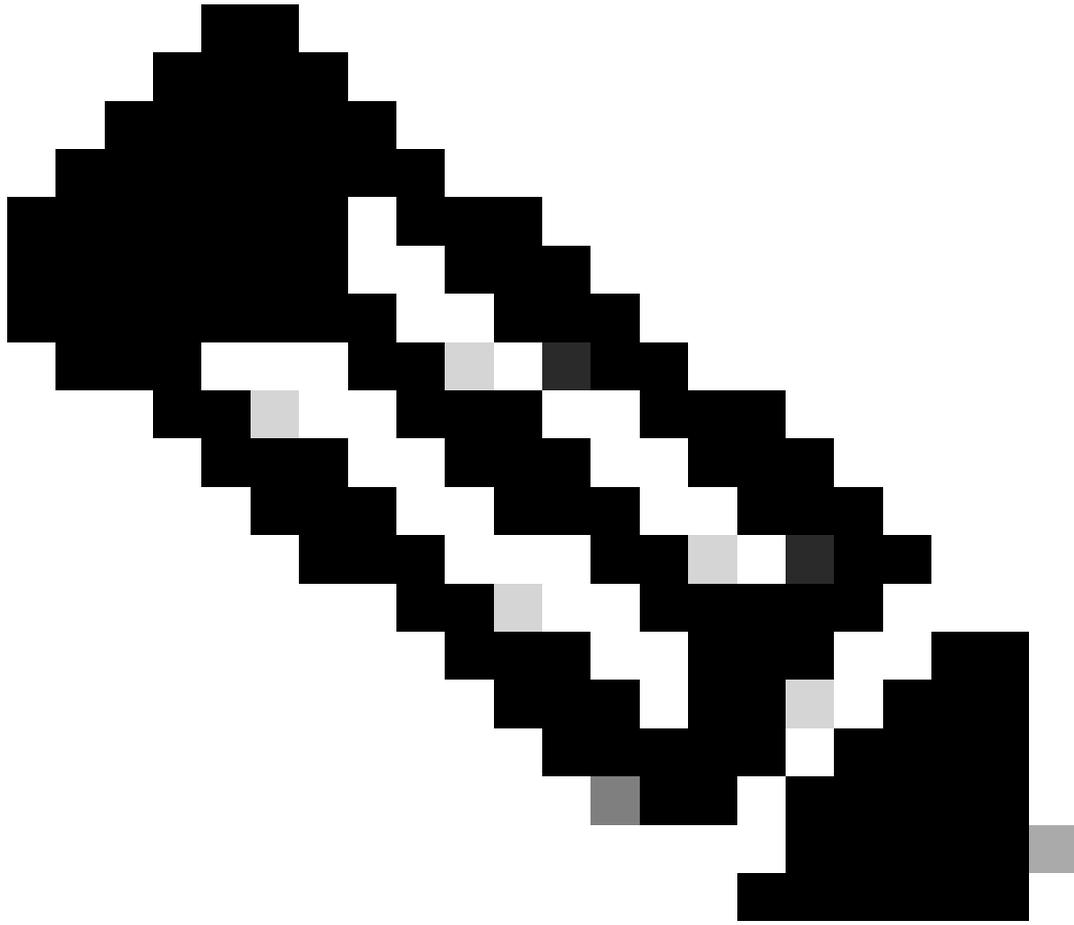
Entering Boot Menu ...

选择vKVM-Mapped vDVD选项以引导HUU ISO映射。

Please select boot device:

UEFI: Built-in EFI Shell
UEFI: PXE IPv4 Intel(R) Ethernet Controller X550
UEFI: HTTP IPv4 Intel(R) Ethernet Controller X550
UEFI: HTTP IPv6 Intel(R) Ethernet Controller X550
UEFI: PXE IPv4 Intel(R) Ethernet Controller X550
UEFI: HTTP IPv4 Intel(R) Ethernet Controller X550
UEFI: HTTP IPv6 Intel(R) Ethernet Controller X550
UEFI: PXE IPv4 Cisco NIC 5c:71:0d:c4:0f:d0
UEFI: HTTP IPv4 Cisco NIC 5c:71:0d:c4:0f:d0
UEFI: HTTP IPv6 Cisco NIC 5c:71:0d:c4:0f:d0
UEFI OS
UEFI: Cisco vKVM-Mapped vDVD1.24
Enter Setup

↑ and ↓ to move selection
ENTER to select boot device
ESC to boot using defaults



注意：加载HUU ISO可能需要几分钟时间。

步骤4.-重新映像当前版本。

等待HUU ISO加载并接受思科软件许可协议。



HOST UPGRADE UTILITY

Cisco Software License Agreement

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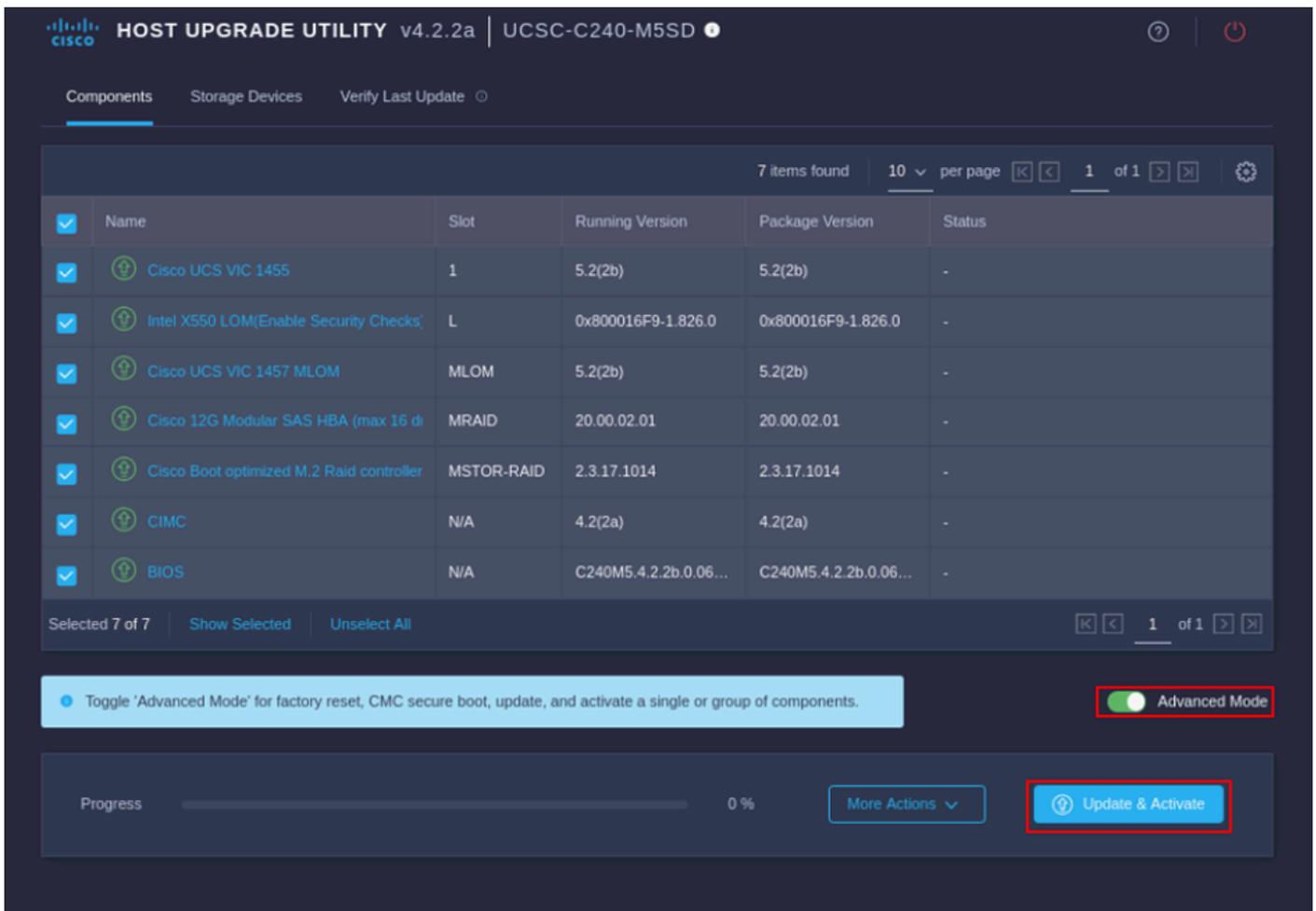
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Reject

Accept

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切换到高级模式并选择所有组件，然后单击更新和激活。



请等待，直到它完成重新映像，然后服务器重新启动。

将服务器集成到UCS Manager

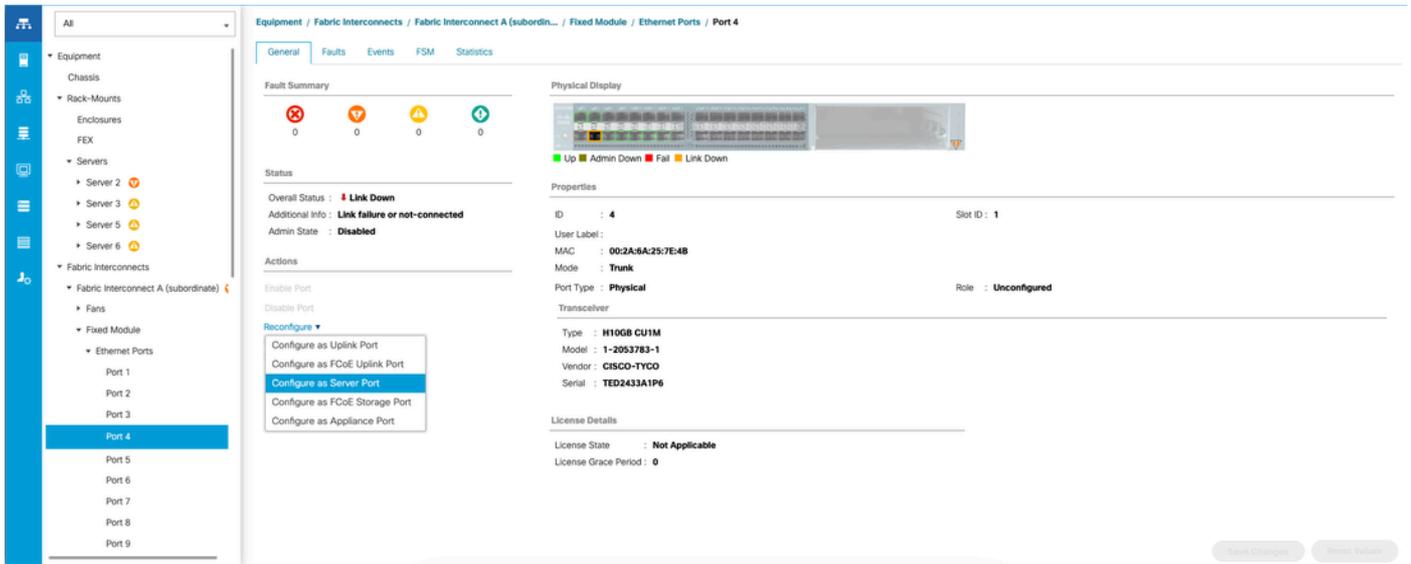
步骤1:将CIMC设置为出厂默认设置。

与在将服务器置于独立模式上重复步骤3中的步骤相同

步骤2.-将端口重新配置为服务器端口

导航到设备>交换矩阵互联>交换矩阵互联A > 固定模块> 以太网端口> 端口x。

单击Reconfigure并选择Configured as Server Port。



对交换矩阵互联B重复相同的步骤

导航到设备>交换矩阵互联>交换矩阵互联B > 固定模块> 以太网端口> 端口x。

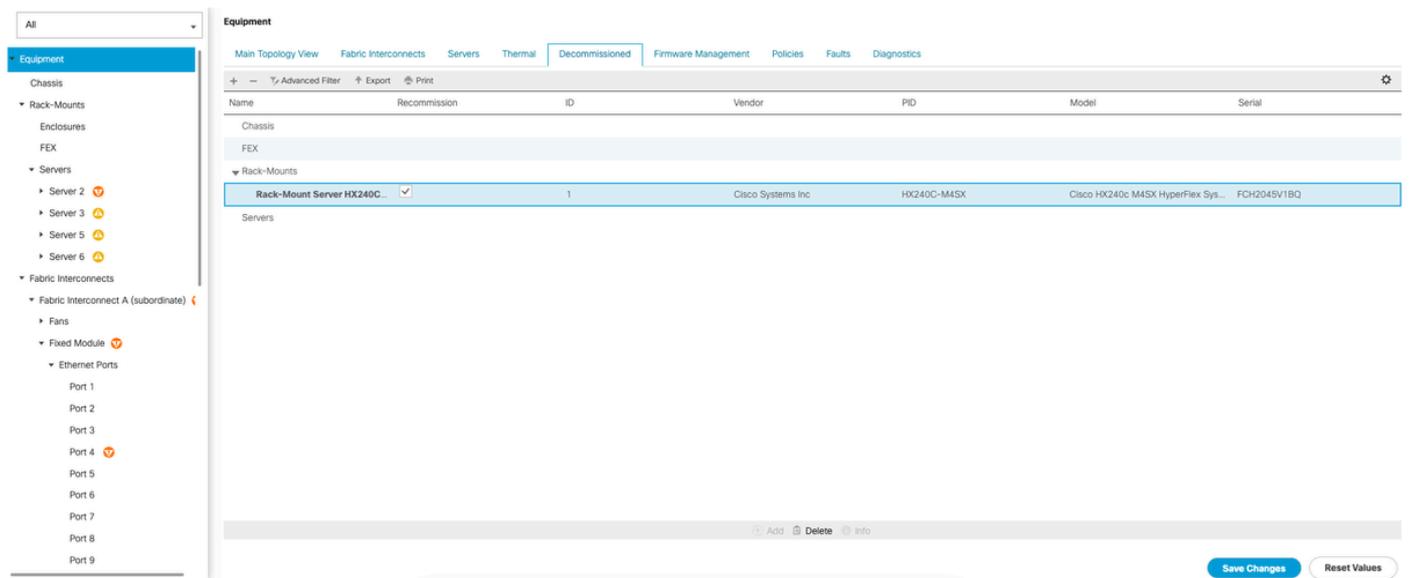
单击Reconfigure并选择Configured as Server Port。

步骤3.连接适配器电缆

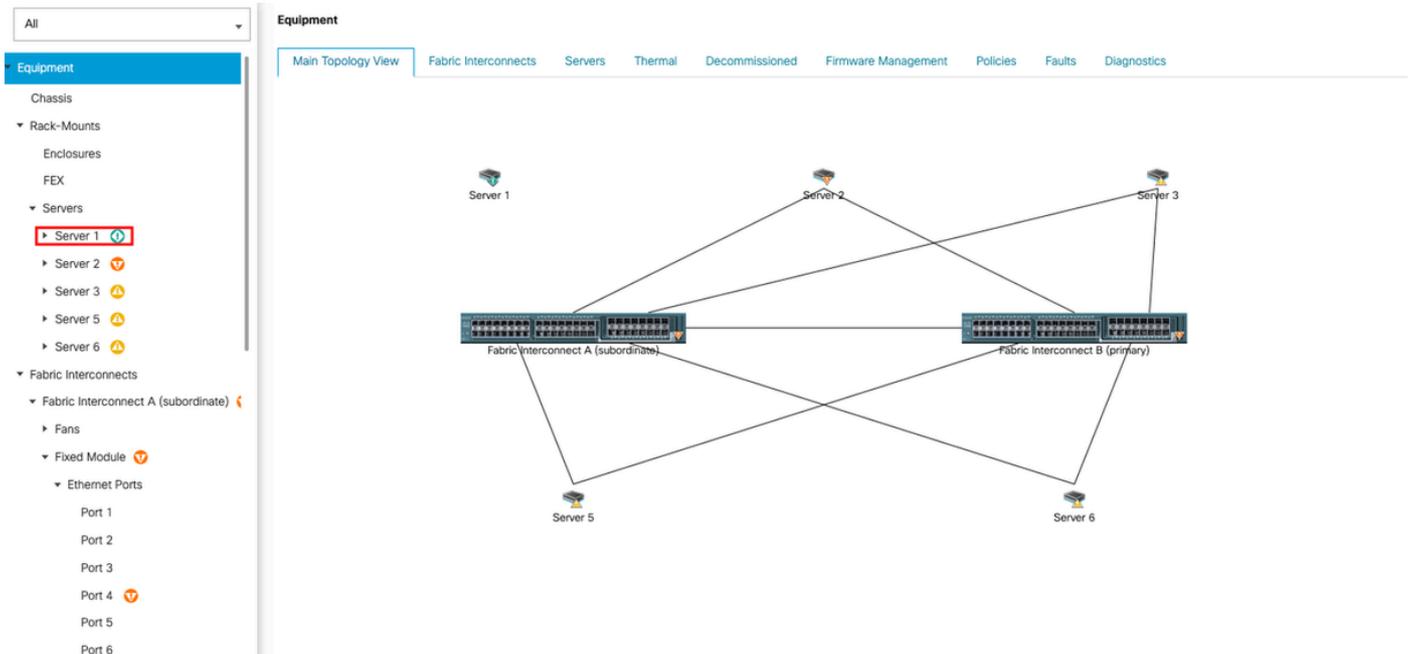
将端口1连接到VIC卡的FI-A，将端口3连接到FI-B。

第四步：重新启用服务器。

转至Equipment > Decommited > Rack-Mounts，选中Recommission复选框，Save Changes。



请等待，直到您再次看到您的服务器。



您可以通过服务器FSM监控服务器发现。

Equipment / Rack-Mounts / Servers / Server 1

General Inventory Virtual Machines Hybrid Display Installed Firmware SEL Logs CIMC Sessions VIF Paths Power Control Monitor Health Diagnostics Faults Events **FSM** Statistics Temperatures Power

FSM Status : **In Progress**
 Description :
 Current FSM Name : **Discover**
 Completed at :
 Progress Status : 14%
 Remote Invocation Result : **Not Applicable**
 Remote Invocation Error Code : **None**
 Remote Invocation Description :

Step Sequence

Order	Name	Description	Status	Timestamp	Retried
1	Discover Sw Port Details Local	Fetching adaptor connectivity details for ...	Skip	2023-09-26T17:02:14Z	0
2	Discover Sw Port Details Peer	Fetching adaptor connectivity details for ...	Skip	2023-09-26T17:02:14Z	0
3	Discover Sw Configure Port Channel Local	Configuring port channel for server 1/FS...	Skip	2023-09-26T17:02:14Z	0
4	Discover Sw Configure Port Channel Peer	Configuring port channel for server 1/FS...	Skip	2023-09-26T17:02:14Z	0
5	Discover Bmc Configure Conn Local	Configuring connectivity on CIMC of serv...	Success	2023-09-26T17:02:14Z	1
6	Discover Sw Configure Port 1 and	Configuring fabric interconnect connect...	Success	2023-09-26T17:02:15Z	1

Name :
 Status :
 Description :
 Order :
 Retried :
 Timestamp :

Save Changes Reset Values

注意：发现操作可能需要几分钟才能开始

服务器完成发现过程后，即会启动服务配置文件(SP)的关联。

Equipment / Rack-Mounts / Servers / Server 1

General Inventory Virtual Machines Hybrid Display Installed Firmware SEL Logs CIMC Sessions VIF Paths Power Control Monitor Health Diagnostics Faults Events **FSM** Statistics Temperatures Power

FSM Status : **In Progress**

Description :

Current FSM Name : **Associate**

Completed at :

Progress Status : 33%

Remote Invocation Result : **Not Applicable**

Remote Invocation Error Code : **None**

Remote Invocation Description :

Step Sequence

Order	Name	Description	Status	Timestamp	Retried
1	Associate Download Images	Download images from operations mana...	Skip	2023-09-26T23:03:45Z	0
2	Associate Copy Remote	Copy images to peer node(FSM-STAGE...	Skip	2023-09-26T23:03:45Z	0
3	Associate Update iBMC Fw	Update CIMC firmware of server 1(FSM...	Skip	2023-09-26T23:03:45Z	0
4	Associate Wait For iBMC Fw Update	Wait for CIMC firmware completion on se...	Skip	2023-09-26T23:03:45Z	0
5	Associate Config User Access	Configuring external user access(FSM-S...	In Progress	2023-09-26T23:03:47Z	1
6	Associate Associate iBMC C...	Associate CIMC Remote of server 1(CIMC...	Skip	2023-09-26T23:03:45Z	0

Name :
Status :
Description :
Order :
Retried :
Timestamp :

Save Changes Search Values

完成发现和关联后，您可以启动服务器并将其恢复生产。

相关信息

- [UCS C系列与Cisco UCS Manager的集成](#)
- [UCS C系列服务器实用程序](#)
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