升級APIC上的CIMC

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簡介

本文說明如何升級運行思科應用策略基礎設施控制器(APIC)的UCS C系列伺服器上的思科整合管理 控制器(CIMC)。

必要條件

需求

思科建議您瞭解以下主題:

- UCS伺服器
- APIC

採用元件

本文檔中的資訊基於在UCS C系列伺服器上運行的APIC伺服器。

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。

升級之前

升級ACI交換矩陣的軟體版本可能會對您的交換矩陣上運行的CIMC版本設定新的要求,因此,始終 建議檢查APIC軟體版本的發行說明,以瞭解特定APIC版本支援的CIMC軟體版本清單。

1.檢查APIC發行說明,並確認需要升級至哪個CIMC軟體映像。連結至<u>APIC發行說明</u>。

2.從Cisco.com網站獲取軟體映像。

3.確認映像的MD5校驗和與在Cisco.com網站上發佈的映像相匹配。

4.升級CIMC版本所需的時間因本地電腦和UCS-C機箱之間的鏈路速度、源/目標軟體映像和其他內 部元件版本而異。 5. CIMC升級不會影響生產網路,因為APIC不在流量的資料路徑中。

6.升級CIMC版本時,可能還需要更改Internet瀏覽器和Java軟體版本才能運行vKVM。

要升級APIC CIMC,您還可以使用Cisco Host Upgrade Utility Based on Guide。

在UCS C系列伺服器上運行的APIC伺服器。思科UCS 220 M5、思科UCS 220 M4(第二代裝置 APIC-SERVER-M2和APIC-SERVER-L2)或思科UCS 220 M3(第一代裝置APIC-SERVER-M1和 APIC-SERVER-L1),稍有差異,即使用受信任平台模組(TPM)、證書和APIC產品ID(PID)保護的 映像來製造伺服器。

APIC平台 對應的UCS平台 說明

APIC-由三個思科APIC第一代控制器組成的集群,具有中型的CPU、硬碟和記憶體四 SERVER- UCS-C220-M3 ,最多可連線1000個邊緣埠。 M1 APIC-由三個思科APIC第二代控制器組成的集群,具有中型的CPU、硬碟和記憶體四 SERVER- UCS-C220-M4 .最多可連線1000個邊緣埠。 M2 APIC-由三個思科APIC第二代控制器組成的集群,具有中型的CPU、硬碟和記憶體四 SERVER- UCS C220 M5 . 最多可連線1000個邊緣埠。 M3 APIC-由三個思科APIC第一代控制器組成的群集,具有大型CPU、硬碟和記憶體配置 SERVER- UCS-C220-M3 支援1000多個邊緣埠。 L1 APIC-由三個思科APIC第二代控制器組成的群集,具有大型CPU、硬碟和記憶體配置 SERVER- UCS-C220-M4 支援1000多個邊緣埠。 L2 APIC-SERVER-UCS C220 M5 具有大型CPU、硬碟和記憶體配置(超過1200個邊緣埠)的思科APIC L3

程式

步驟1.首先確定APIC模型。

您可以在CIMC GUI中選中此項,以驗證Server > Summary下顯示的PID。

Cisco Integrated Management Controller									
Overall Server Status	C 🕹 🕹 🔾 🧱	© 0 0							
Moderate Fault	Server Summary								
Server Admin Storage	Actions	Server Properties							
Cummany	Power On Server	Product Name:							
Inventory		Serial Number:	FCH1825V0PT						
Sensors	Power Off Server	PID:	APIC-SERVER-L1						
Permete Processo	Shut Down Server	UUID:	B3191E68-2354-490B-A80F-05E92814B0AE						
Remote Presence	Power Cycle Server	BIOS Version:	C220M3.2.0.9a.0 (Build Date: 11/30/2015)						
Downer Dellales	Mused Decet Conver	Description:							
Power Policies	Mard Reset Server								
Faults and Logs	Launch KVM Console	Server Status							
Troubleshooting	Turn On Locator LED	Power State:	O On						
		Overall Server Status:	A Moderate Fault						

步驟2.下載軟體。

在思科下載軟體(Cisco Download Software)頁面中,導航至選擇產品(Select a Product)>下載 (Downloads)>主伺服器(Home Servers)- Unified Computing)> UCS C系列機架式獨立伺服器軟體 (UCS C-Series Rack-Mount Standalone Server Software)>根據生成APIC > **Unified Computing** System(UCS)伺服器韌體(UCS)選擇UCS 2220 M3/M4/M5.

Software Download

My Previous Downloads Product Application Centric Infrastructure Simulator	Software Type Application Centric Infrastructure (ACI) Simulator Software	Latest Release 3.2(3o)	Last Downloaded 3.2(3n)	Most Popular ASA 5515-X IPS Security Services Proces ASA 5585-X IPS Security Services Proces ASA 5525-X IPS Security Services Proces ASA 5512-X IPS Security Services Proces AnyConnect Secure Mobility Client v4.x
2504 Wireless Controller UCS C220 M3 Rack Server Software View all 24 Downloads >	Wireless LAN Controller Software Unified Computing System (UCS) Server Firmware		8.5.135.0 3.0(4j)	Jabber for Windows
Select a Product	UCS C220 UCS C220 M3 Rack Server Software UCS C220 M4 Rack Server Software UCS C220 M5 Rack Server Software			Browse all

附註:確保檢查建議的<u>CIMC版本和軟體版本指南</u>,下載適用於當前ACI軟體版本的建議 CIMC韌體版本。

僅使用CIMC APIC推薦的韌體,而不使用該UCS型號的最新或推薦的韌體。

步驟3.從CIMC GUI啟動KVM控制檯。



KVMJAVA <u>CIMC</u>

步驟4.若要啟用虛擬裝置,請導覽至Virtual Media > Activate Virtual Devices,如下圖所示。



步驟5.若要將下載的ISO映像對映為CD/DVD,請導覽至Virtual Media > Map CD/DVD,如下圖所示



步驟6.從本地電腦瀏覽ISO映像,然後按一下Map Device(如圖所示)。

0



步驟7。若要重新開機,請導覽至Power > Reset System(warm boot),如下圖所示。



步驟8.若要進入「Boot」功能表,請在系統重新啟動後按**F6**,如下圖所示。



Press <F2> Setup, <F6> Boot Menu, <F7> Diagnostics, <F8>Cisco IMC Configuration, <F12> Network Boot

Bios Version : C220M3.2.0.8.0.071620152158 Platform ID : C220M3

Cisco IMC IPv4 Address : 10.48.22.125 Cisco IMC MAC Address : 88:1D:FC:99:EC:12

Total Memory = 64 GB Effective Memory = 64 GB Memory Operating Speed 1600 Mhz

Entering boot selection menu...

步驟9.插入使用者設定的密碼或使用預設密碼password。



附註:在執行此過程之前,必須設定BIOS管理員密碼。要設定此密碼,請在系統引導過程中 出現提示時按F2鍵以進入BIOS設定實用程式。然後導覽至Security > Set Administrator Password,並根據提示輸入新密碼兩次。

步驟10.選擇引導裝置vKVM對映vDVD1.22,如下圖所示。

Please select boot device:



步驟11.現在Cisco UCS Host Upgrade Utility啟動,如下圖所示。



步驟12.閱讀許可協定,然後按一下I Agree,如下圖所示。

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I <u>A</u> GREE I <u>D</u> ISAGREE		

步驟13.若要升級所有元件,請按一下**Update All**,將當前版本升級為更新版本,請注意,升級過程 中APIC可能會顯示斷開連線。

e View Macros Tools Power Virtual Media Help Cisco Host Upgrade Utility v3.0.4j						
Cisco C220 Rack Server						
1 Cisco IMC	NA	2.0(9o)	3.0(4))	NONE		
2 BIOS	NA	C220M3 2 0 9c 0 062920180719	C220M3 3.0.4b 0.0622180149	NONE		
3 Intel I350 LOM	NA	0x80000AA4-1.808.2	0x80000E79-1.8121	NONE		
4 UCSC 2008M-8i(R5)	м	20131-0249	20.13.1-0255	NONE		
5 Cisco UCS VIC 1225 adapter	1	41(2e)	42(3b)	NONE		
Update Update All Up	date HDD I	Firmware Save Logs Last Upo	ate verify Bestore CIMC Defaults	Help Egg		
No Update in Progress						
control Logs control Logs control and the second second control and second control	very compli ion discove ation disco	ete. ny complete. very complete. mation discovery complete.				
ecution Logs overcamp data Crisco avic mormation disco- collecting data BIOS information disco- tel 1350 LOM discovered. collecting data Intel 1350 LOM informat CSC 2008M-8i discovered. collecting data UCSC 2008M-8i inform sco UCS VIC 1225 adapter discovered collecting data Cisco UCS VIC 1225 ad scovery complete.	very compl ion discove ation disco Japter infor	ete. ete. ny complete. very complete. mation discovery complete.				
Collecting data Cisco awc incrimation disco- tel 1350 LOM discovered. Collecting data BIOS information disco- tel 1350 LOM discovered. Collecting data Intel 1350 LOM informat CSC 2008M-Bi discovered. Collecting data UCSC 2008M-Bi inform isco UCS VIC 1225 adapter discovered collecting data Cisco UCS VIC 1225 ad iscovery complete. Closervations	very compl ion discove ation disco Sapter infor	ete. ny complete. very complete. mation discovery complete.				

步驟14.請勿啟用Cisco IMC安全啟動。

Cisco IMCNOCisco UCS CGUI4.0/Introduction to Cisco IMC Secure Boot

Id Component PCI state Current Version Update Version Update Status I Cisco MAC NA 20(90) 30(4) NONE I Cisco MAC NA 20(90) 30(4) NONE I Cisco MAC NA C220M320.96.0.052920180719 C220M3.3.0.4b.0.0552280149 NONE I 4 UCSC 2008M-BigR5) M 0x80000A4-1.8082 0x800000E 79-1.812.1 NONE I 5 Cisco UCS VIC 1225 adapter Images on the server NONE NONE NONE I You cannot stall and boot only signed Cisco IMC termina Images on the server NONE NONE I You cannot disable this option later on 4 Both numing and backup CIMC images will be overwritten. Images on the server NONE I You cannot disable the image before preforming regular server tased tasks. The Secure Boot option images on the server NONE Images on the server I You cannot disable the image. NOTE: ECMC Secure Boot option is soled only where tased tasks. The Secure Boot option images on the server Images on the server Images on the server I You cannot disable the image beforming regular settt	File View Macros Tools Power Virtual Media Help Cisco Host Upgrade Utility v3.0.4j Cisco C220 Rack Server						
I Cisco IMC NA 2.0(bo) 3.0(4) NONE I Cisco IMC NA C220M3.2.0 %c.0.062220180719 C220M3.3.0.4b.0.0622180149 NONE I J Incel I350 LOM NA 0x80000A4.1808.2 0x80000E79-1812.1 NONE I 4 UCSC 2008M-BiRS) M 20.131-0249 20.131-0255 NONE I 5 Cisco UCS VIC 1225 adapter Enabling Cisco IMC Secure Boot option imples: NONE I You can instail and boot Cisco IMC trensume images on the server. 1. You can instail and boot Cisco IMC trensume images will be overwritten. NONE I You cannot disable this option later on. 4. Both numing and backup CIMC images will be overwritten. MPORTANT. After installing the firmware image before performing regular server-based tasks. The Secure Boot option is enabled only when the firmware installation is complete and you have activated the image. NOTE: If CIMC Secure boot was already enabled, then "No" will not have any effect. Collecting data Entel I350 LOM information discovery complete. Do you want to enable Cisco IMC secure boot? Image Yes Collecting data Entel I350 LOM information discovery complete. Collecting data Entel I350 LOM information discovery complete. Collecting data Entel I350 LOM information discovery complete. <t< th=""><th></th><th>Id Component</th><th>PCI slot</th><th>Current Version</th><th>Update Version</th><th>Update Status</th></t<>		Id Component	PCI slot	Current Version	Update Version	Update Status	
² 2 BNOS NA C220M32.0.9c.0.062920180719 C220M33.0.4b.0.0622180149 NONE ² 3 Intel I350 LOM NA 0x80000A.44.1.808.2 0x80000CF.79.1.812.1 NONE ² 4 UCSC 2008M-BigR5) M 20131-0249 20131-0255 NONE ² 5 Cisco UCS VIC 1225 adapter ² Finabling Cisco IMC Secure Boot option implies: NONE ² 7 or cannot install and boot only signed Cisco IMC terrising NONE NONE NONE ² You cannot install and boot only signed Cisco IMC terrising NONE NONE NONE ¹ You can install and boot only signed Cisco IMC versions prior than 1.5 (2x). 1. You cannot disable this option later on. 4. Boh numing and backup CIMC images will be overwritten. MPORTANT. After installing the firmware with the Secure Boot potion enabled, activate the image before pedorming regular server-based tasks. The Secure Boot option is enabled only when the firmware installation is complete and you have activated the image. MOTE: F CIMC Secure boot was already enabled,	1	1 Cisco IMC	NA.	2.0(9o)	3.0(4)	NONE	
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S Clasco UCS VIC 1225 adapter NONE Image: S Enabling Clasco MC Secure Boot option implies: NONE 1 You can install and boot only signed Clasco MC firmware images on the serve: You cannot disable this option later on. NONE 1 You cannot disable this option later on. Hoth numming and backup CMC images will be overwritten. MPORTANT: After installing the firmware with the Secure Boot option is enabled only when the firmware installation is complete the image before pedorming regular server-based tasks. The Secure Boot option is enabled only when the firmware installation is complete and you have activated the image. MOTE: If CMC Secure boot was already enabled, then "No" will not have any effect. NOS discovered. Do you want to enable Clasco MC secure boot? Image: Yes Collecting data UCSC 2000M-Bi information discovery complete. Xeccolog data UCSC 2000M-Bi information discovery complete. Collecting data UCSC 2000M-Bi information discovery complete. Xeccolog data UCSC 2000M-Bi information discovery complete. Collecting data UCSC 2000M-Bi information discovery complete. Collecting data UCSC 2000M-Bi information discovery complete. Collecting data UCSC VIC 1225 adapter information discovery complete. Collecting data UCSC 2000M-Bi information discovery complete.	₹.	4 UCSC 2008M-Bi(R5)	M	20131-0249	20.13.1-0255	NONE	
Image: Construction Logs Do you want to enable Cisco IMC secure boot? Constructing data Excorement anomation discovery Image: Construction Cisco IMC secure boot? SNOS discovered. Image: Construction Cisco IMC secure boot? Collecting data BIOS information discovery complete. Image: Construction Cisco IMC secure boot? Collecting data Intel I350 LOM information discovery complete. Image: Construction Cisco IMC secure boot? Collecting data UCSC 2008M-8i information discovery complete. Image: Construction Cisco IMC secure boot? Collecting data UCSC 2008M-8i information discovery complete. Image: Cisco IMC secure boot? Collecting data Cisco UCS VIC 1225 adapter information discovery complete. Image: Cisco IMC secure boot? Collecting data Cisco UCS VIC 1225 adapter information discovery complete. Image: Cisco IMC secure boot?	Controls WPORTANT: After installing the firmware with the Secure Boot option is enabled only when the firmware installation is complete and you have activated the image. NOTE: If CIMC Secure boot was already enabled, then "No" will not have any effect.						
Discovery complete. Observations							

Â	10.48.16.103 - KVM Console							
File	File View Macros Tools Power Virtual Media Help							
	Cisco Host Upgrade Utility v3.0.4j Cisco C220 Rack Server							
	Into	id Id	Component	PCI slot	Current Version	Update Version	Update Status	
I E]	1	Cisco IMC	NA	2.0(90)	3.0(4)	PASS	
Ē] ;	2	BIOS	NA	C220M3 2 0.9c 0.062920180719	C220M3 3.0.4b 0.0622180149	SCHEDULED	
)	3	Intel 1350 LOM	NA	0x80000AA4-1.808.2	0x80000E79-1.812.1	PASS	
C] /	4	UCSC 2008M-Bi(R5)	M	20131-0249	20.13.1-0255	PASS	
	Controls Update All Update HDD Firmware Save Logs Last Update Verify Bestore CIMC Defaults Help Exit							
					Updating firmware.			
Execution Logs Optiating Component [1350] Started Updating firmware Updating Component [1350] DONE Updating Component [2008M-8i] Started Updating firmware Updating firmware Updating Component [2009M-9i] DONE Updating Component [UCS VIC 1225] Started Updating firmware Updating firmware								
(c) :	201	8 Ci	sco Systems, Inc. All rights reser	ved.		10.48.16.103	admin 0.6 tps 0.001 KB/s 🚮 🚅	

步驟15. HUU將在每個元件完成升級後重新啟動裝置,然後您可以使用GUI和CLI訪問機箱。

當伺服器重新啟動時,您將從CIMC GUI中推出,您需要重新登入到CIMC並驗證升級已成功完成。 為此,您可通過GUI進行驗證,或啟動CIMC主機升級實用程式,然後選擇Last Update Verify以確保 所有元件成功通過升級。

步驟16。若要確認此版本是否成功升級,請登入CIMC GUI並導覽至Admin > Firmware Management,然後檢查Cisco IMC韌體,如下圖所示。

cisco Integra	ated Management Controller	Cisco IMC Hostname: bdsol-aci01-ucsc1 Logged in as: admin@10.149.12.20 Log Ou
Overall Server Status	C U U B Q 0 0	
	Firmware Management	
Server Admin Storage	Install Cisco IMC Firmware through Browser Client	ř
User Management	Linstall Cisco IMC Firmware from Remote Server	
Network	Activate Cisco IMC Firmware	
Communications Services	L Install BIOS Firmware through Browser Client	
Certificate Management		
Event Management	Linstall BIOS Firmware from Remote Server	
Utilities	Giza IMC Emurana	
oundes.	Running Version: 30(4i)	
	Backup Version: 3.0(4)	
	Boot-loader Version: 3.0(4j).36	
	Cisco IMC Secure Boot Enabled: Yes	
	Last Cisco IMC Firmware Instal	
	Status: Completed Successfully	
	(BIOS Firmware	
	Last BIOS Firmware Instal	
	Status: Completed Successfully	