在Intersight管理模式下升級基礎設施和伺服器韌 體

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簡介

本文檔介紹在Cisco UCS域中的所有交換矩陣元件中執行韌體升級的過程。這包括兩個通過 Intersight管理模式(IMM)的交換矩陣互聯(FI)、I/O模組(IOM)和刀鋒伺服器。

必要條件

需求

思科建議您瞭解以下主題:

- Intersight
- 思科整合運算系統(UCS)

升級Intersight受管FI韌體之前,請考慮以下前提條件:

- •只能升級Cisco UCS域中的Cisco UCS 6400系列FI。
- •要下載韌體捆綁包,您必須在FI分割槽中至少有下一個可用儲存:

/var/tmp中的90%可用空間/var/sysmgr中的20%可用空間/mnt/pss中的30%可用空間/bootflash中的18%可用空間

- Cisco UCS域中的所有伺服器都必須位於許可證層Essentials或更高版本上。
- 套件組合的最低版本為4.1(2a)。

採用元件

本文中的資訊係根據以下軟體和硬體版本:

- Cisco UCS 6400系列FI,初始韌體4.2(1e)
- UCSB-B200-M5刀鋒伺服器,初始韌體4.2(1a),高級許可證層
- Intersight SaaS

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。

交換矩陣韌體升級

若要開始基礎設施韌體升級,您可以選擇兩個FI中的任何一個,然後按一下Upgrade firmware。

* All Fabric Interconnects +																		
Ø	۹. Search in	M x Add F	iher											2 item	ts found	20 v per page		
Heal	2 • Critic 2	Connect	ion nected 10 Connected 6	Firmware Versio	ns 9.3(3)42(. 2	Models		Contract Status Not Covered 21										
	Name		Health		Contract Status		Managemen		Model :	Expansion Modules :		UCS Domain Profile		Ports Used	Available	Firmware Versio		
			Critical		Not Covered		10.31.123.1	68	UCS-F1-6454		0				50	9.3(5)142(1c)		
			Critical		Not Covered		10.31.123.1	67	UCS-F1-6454		0					9.3(5)142(1c)	Open TAC Case	
0																	Upgrade Firmw	are

這會重定向到升級嚮導初始化的螢幕。

	Upgrade Firmware		
	Version Select a firmware version to upgrade the Fabric Interconnects to.	, see the second	
	• •		
	 About Firmware Upgrade Do not show this page again 		
			Start >

步驟1.確認UCS環境(交換矩陣互聯A和交換矩陣互聯B列)和當前韌體版本。按「**Next」(下一步**)。

Progress Ceneral Version			Step 1 General Ensure selected Fabric Interco requirements for firmware upg	nnects meet rade.			
3 Summary	Confirm Fabric Interconnects Selection	1 Selected					
	Infrastructure firmware upgrade ca	n be performed only on a pair of Fabric Interconnects at o	nce				
				1 items	found <u>10 v</u> per page K		
	Add Filter	Fabric Interconnect A			Fabric Interconnect B		
	Domain Name : Model	Serial	Firmware Version	Model	Serial	Firmware Version	
	UCS-TS-MXC-P25 UCS-FI	6454 FD02440009X	9.3(5)142(1c)	UCS-FI-6454	FD024270LDM	9.3(5)I42(1c)	
	Selected 1 of 1 Show Selected						
< Back Ca	incel						Next >

步驟2.按一下目標韌體版本。按「Next」(下一步)。

Œ Progress						Ê	Step 2 Version Select a firmware version to upgrade the Fabric			
1 General						-¥	Interconnects to.			
Version	Select	Firmware Bun	dle					Adva	nced Mode 🌖	
3 Summary		The selected f	irmurara b	undia will b	a doumioa	ded from intereight com. By d	afault the uncerte enables Eabric Interconnect traffic a	versation. Use Advanced Mode to exclude	Eabrie	
	•	Interconnect to	raffic evac	cuation.	e oownioai	ded from intersigne.com. By d	eraur, the upgrade enables rabits interconnect trains e	vacuation, use Advanced Mode to exclude	rabric	
		Add Filter					10 items found	10 → perpage K < 1 of 1		
		Version				Release Date :	Description			
		4.2(1h)			1.66 GiB	Sep 16, 2021 10:49 PM	Cisco Intersight Infrastructure Bundle			
		4.2(11)			1.66 GiB	Aug 17, 2021 1:28 PM	Cisco Intersight Infrastructure Bundle			
		4.2(1e)			1.67 GiB	Aug 4, 2021 7:21 AM	Cisco Intersight Infrastructure Bundle			
		4.2(1d)			1.66 GiB	Jun 27, 2021 9:57 PM	Cisco Intersight Infrastructure Bundle			
		4.1(5i)			1.71 GiB	Jul 8, 2021 11:25 PM	Cisco Intersight Infrastructure Bundle			
		4.1(3f)			1.64 GiB	Sep 3, 2021 12:47 AM	Cisco Intersight Infrastructure Bundle			
		4.1(3d)			1.65 GiB	Jun 1, 2021 2:09 PM	Cisco Intersight Infrastructure Bundle			
		4.1(3d)			1.64 GiB	Jul 30, 2021 4:10 PM	Cisco Intersight Infrastructure Bundle			
		4.1(3c)			1.65 GiB	May 11, 2021 10:47 AM	Cisco Intersight Infrastructure Bundle			
		4.1(3b)			1.65 GiB	Jan 27, 2021 9:25 PM	Cisco Intersight Infrastructure Bundle			
	Select	ted 1 of 10							1 of 1 > >	
										Next

步驟3.這是顯示選定裝置和目標韌體版本的摘要。當目標韌體高於當前版本時,韌體版本上會顯示 綠色箭頭,否則將顯示黃色箭頭。

			Step 3 Summary Confirm configuration ar	d initiate th	e upgrade.			
 Selected firmware bur 	dle will be downloaded to the	e Fabric Interconnects and up	graded. Click on Requests	to monitor t	he progress of the fi	rmware upgrade.		
Firmware								
	4.2(1f) @				1.6	6 GiB		
Fabric Interconnects to b	e Upgraded							
						10 🗸 per page 🔣 🔇		
Domain Name 🔅	Model	Fabric Interconnect A Serial	Firmware Version	Model		Fabric Interconnect B Serial		
	UCS-FI-6454	FD02440009X	9.3(5)I42(1c)	UCS-FI	-6454	FD024270LDM	9.3(5)142(1c)	

按一下「upgrade」後,您必須再次確認一次。此時,FI尚不需要重新啟動。

Upgrade Firmware Firmware will be installed on the selected Fabric Interconnects. Are you sure you want to upgrade firmware? Cancel

若要監控升級,請導覽至Requests,然後按一下Active。按一下活動的名稱可檢視完整的工作流任務。



Requests > Upgrade	Firmware		1	9, © 0	ھ
Details		Execution Flow			
Status	O In Progress	Progress			
Name	Upgrade Firmware 6151e543696f6e2d334ec382	Wait for image download to complete in endpoint. 14% completed.			
Target Type Target Name	Fabric Interconnect UCS-TS-MXC-P25-6454-IMM FI-A	 Initiate image download to the endpoint. Download ucs-intersignt-infra-4ght 4.2. It bin request is submitted successfully. 			
Source Type Source Name	Firmware Upgrade	Validate the requirements for the endpoint. Validation of pre-upgrade space availability completed successfully.			
Initiator	@cisco.com				
Start Time	Sep 27, 2021 10:37 AM				
End Time					
Duration	6 m 55 s				
Organizations					

為了完成該過程,您必須先確認交換矩陣B的重新啟動,然後確認交換矩陣A的重新啟動。

附註:繼續重新啟動第二個FI之前,請確保第一個交換矩陣上的資料路徑已準備就緒。若要驗 證這一點,可以使用API或CLI以及命令(nxos)# show pinning border-interfaces。

工作流任務如下:

- 從Intersight軟體儲存庫下載Intersight FI捆綁包
- 升級IOM
- 疏散FI B上的資料流量
- 啟用FI B
- 等待使用者Ack :FI重新啟動
- 等待啟用完成
- 疏散FI A上的資料流量
- 啟用FI A
- 等待使用者Ack :FI重新啟動
- 等待啟用完成

伺服器韌體升級

選擇要升級的伺服器,然後從Actions下拉選單中選擇Upgrade Firmware。

OPERATE > Servers	> UCS-TS-MXC-P25-6454-IMM-1	-1	🗘 🖬 313 🔺 271 🛛 🖓 🥵 🖓	۹ 🕲		2
General Inventory U	JCS Server Profile HCL				Actions v	
Details		Properties		Events	Power >	
Health	O Healthy	Cisco UCSB-8200-M5	Front View Top View	+ Alarms	System >	
Name	UCS-TS-MXC-P25-6454-			+ Requests	Install Operating System	
User Label	IMM-1-1 IMM_server	_		+ Advisories	Upgrade Firmware	15
Management IP	10.31.123.210				Launch vKVM	
Serial	FLM2402001F		-		Open TAC Case	
PID	UCS8-8200-M5		-1		Set License Tier	
Vendor	Cisco Systems Inc					

這將初始化韌體升級。

步驟1.確認伺服器是否正確並驗證當前韌體版本。

Servers > Upgrade Firmware				٩	🛚 313 🔺 271 🛛 🖂 🬾	32 Q © 0
				Step 1		
General 2 Version			₹ <u></u> ×= ×=	General Ensure selected servers meet requirer firmware upgrade.	ments for	
3 Summary	Confirm	m Servers Selection 1 Selected				
					1 items found 10 v per page	
		Name 0	User Label 🗧	Model 0	Firmware Version	UCS Domain
			IMM_server	UCSB-B200-M5	4.2(1a)	UCS-TS-MXC-P25-6454-IMM
	Selec	ted 1 of 1 Show Selected Un				

步驟2.按一下目標韌體版本旁邊的單選按鈕。

E Progress				Ċ	Step 2 Version Select a firmware version to upgra	de the servers to.	
3 Summary	Selec	t Firmware Bundle				Advanced Mo	ide 🌒
	•	The selected firmware bund upgrade of drives and stora	dle will be download age controllers.	led from intersight.com. All th	e server components will be upgrade	d along with drives and storage controllers. Use Advanced Mode to exc	lude
						5 items found 10 - per page K < 1 of 1 > >	
		Version C S	ize :	Release Date :	Description		
		4.2(1b)	577.84 MiB	Sep 13, 2021 8:35 AM	Cisco Intersight Server Bundle		
	0	4.2(1a)	575.41 MiB	Aug 6, 2021 7:36 PM	Cisco Intersight Server Bundle		
	0	4.1(3d)	510.98 MiB	Aug 16, 2021 11:48 AM	Cisco Intersight Server Bundle		
	0	4.1(3c)	506.01 MiB	Jun 1, 2021 1:48 PM	Cisco Intersight Server Bundle		
	0	4.1(3b)	494.63 MiB	Jan 27, 2021 11:17 PM	Cisco Intersight Server Bundle		
	Sele	cted 1 of 5 Show Selec					

步驟3.這是顯示伺服器和目標韌體版本的摘要。當目標韌體高於當前版本時,韌體版本上會顯示綠 色箭頭,否則將顯示黃色箭頭。

E Progress General Version			1		Step 3 Summary Confirm config	uration and initiate th	e upgrade.		
Summary	R	irmware							
	v	ersion	4.2(1b) 👁			Size		577.84 MiB	
	s	ervers to be Upgraded							
							1 items fo	ound <u>10 ~</u> per page 📧	
		Name :	User Label :	Model		Firmware Version		Requires Reboot 💿	UCS Domain
			IMM_server	UCSB-8200-M		4.2(1a)		Yes	UCS-TS-MXC-P25-6454-IMM

在Upgrade Firmware對話方塊中,您可以選擇立即重新啟動,或者稍後確認重新啟動。

Upgrade Firmware

Firmware will be installed on next boot. To reboot immediately, please enable the option below.



若要監控升級,請導覽至Requests,然後按一下Active。

🗘 🛛 3 🔺 2 🔵 1	¢ ‡ 32 Q	0	0	٩
		Requests	All	Active Completed ×
Exp	oort 60 items fo	Upgrade Fir UCS-TS-MX	mware (C-P25-6454-IMN	In Progress A-1 a few seconds ago

按一下活動的名稱可檢視完整的工作流任務。

Requests > Upgrade	Q 🖬 3	▲ 2:	ß	¢‡ 32	۹ ۵	0	٩		
Details		Execution Flow							
Status		Restore power settings for server.							
Name	Upgrade Firmware								
ID	61533125696f6e2d33db6334	Wait for firmware upgrade to complete.							
Target Type	Blade Server								
Target Name		 Initiate firmware upgrade. Initiated upgrade successfully. 							
Source Type	Firmware Upgrade								
Source Name	UCS-TS-MXC-P25-6454-IMM-1-1	Cancel the previous firmware upgrade task if it is in pending state.							Sep 28, 2021 10:22 AM
Initiator	@cisco.com	Initiate firmware upgrade on adapter.							Sep 28, 2021 10:22 AM
Start Time	Sep 28, 2021 10:13 AM								
End Time	Sep 28, 2021 10:49 AM	Wait For BIOS POST Completion.							
Duration	35 m 58 s								
Organizations		Power On server.							
		Find image source to download.							

工作流任務如下:

- 從Intersight軟體儲存庫下載Intersight伺服器捆綁包
- •升級介面卡(用於刀片)
- •升級伺服器
- 等待伺服器重新啟動
- 等待升級完成

• 若要驗證FI本地儲存可用空間,請選擇其中一個FI,按一下清單,然後按一下本地儲存。

OPERATE > Fabric Interconnects > UCS-TS-MXC-P25-6	4 ¢1 32 Q, ② ③ ≗		
General Inventory Connections UCS Domain Pro	die		Actions
Sections 2	Local Storage		
Ports & Port Channels			
Fan Modules			8 items found 10 ∨ per page K < 1 of 1 >> X 🚯
PSUs	Partition :	Size (MiB) :	Capacity :
Local Storage	bootflash	84981	38%
	opt	9951	
	spare	7936	
	usbdrive	9048	32%
	var_sysmgr	3800	
	var_tmp	600	
	volatile	2048	
	workspace	7935	63

基礎設施升級後,您可以驗證安裝日誌。這顯示新版本、升級的時間戳並允許您確認升級成功。

UCS-TS-MXC-P25-6454-IMM-A(nx-os) # show install all status This is the log of last installation. <Mon Sep 27 07:01:30> Verifying image bootflash:/ucs-6400-k9-system.9.3.5.I42.1e.bin for boot variable "nxos". -- SUCCESS <Mon Sep 27 07:02:18> <Mon Sep 27 07:02:18> Verifying image type. -- SUCCESS <Mon Sep 27 07:02:24> <Mon Sep 27 07:02:25> Preparing "nxos" version info using image bootflash:/ucs-6400-k9-system.9.3.5.I42.1e.bin. -- SUCCESS <Mon Sep 27 07:02:26> <Mon Sep 27 07:02:26> Preparing "bios" version info using image bootflash:/ucs-6400-k9-system.9.3.5.142.1e.bin. -- SUCCESS <Mon Sep 27 07:02:28> <Mon Sep 27 07:03:14> Performing module support checks. -- SUCCESS <Mon Sep 27 07:03:16> <Mon Sep 27 07:03:16> Notifying services about system upgrade. -- SUCCESS <Mon Sep 27 07:03:29> Compatibility check is done: Module bootable Impact Install-type Reason

1 yes disruptive reset default upgrade is not hitless

1 fpga IO-0x19 MI-0x10 IO-0x22 MI-0x10 yes

Install is in progress, please wait.

<Mon Sep 27 07:03:31> Performing runtime checks. -- SUCCESS <Mon Sep 27 07:03:32>

<Mon Sep 27 07:03:32> Setting boot variables. -- SUCCESS <Mon Sep 27 07:04:11>

<Mon Sep 27 07:04:11> Performing configuration copy. -- SUCCESS <Mon Sep 27 07:04:14>

Module 1: <Mon Sep 27 07:04:14> Refreshing compact flash and upgrading bios/loader/bootrom. Warning: please do not remove or power off the module at this time. -- SUCCESS <Mon Sep 27 07:05:11>

<Mon Sep 27 07:05:11> Install has been successful.



- Cisco Intersight託管模式配置指南:管理韌體
- <u>Cisco Intersight託管模式(IMM)- UCS刀鋒韌體升級</u>
- Cisco Systems