升级UCS Manager

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简介

本文档介绍如何升级Cisco UCS Manager。

先决条件

要求

Cisco 建议您了解以下主题:

• 对Cisco UCS的基本了解。

使用的组件

本文档中的信息基于以下软件和硬件版本:

- 软件版本4.2(2e)
- 软件版本4.3(3a)
- 交换矩阵互联6454 (UCS-FI-6454)

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

本指南中的示例演示了一对思科交换矩阵互联6454,并使用Cisco UCS基础设施软件A捆绑包执行 从版本4.2(2e)到4.3(3a)的升级。

此捆绑包包括更新这些组件所需的固件映像:

• Cisco UCS Manager软件

- 交换矩阵互联的内核和系统固件
- I/O模块固件

在继续进行本练习之前,请阅读交换矩阵互联的特定型号和固件版本的Cisco官方文档。

配置

在<u>Cisco UCS Manager升级/降级支持表</u>网站上验证当前软件版本的升级路径。

CISCO Cisco UCS Manager Upgrade/Downgrade Support Matrix

This page provides Cisco UCS Manager software upgrade and downgrade information based on your current release. The provided upgrade paths have been tested and validated by Cisco. Use this tool as a reference for supported software.

To get a complete overview of all the possible upgrade paths in Cisco UCS Manager, see the Cisco UCS Manager Upgrade and Downgrade <u>matrix</u>.

For Release Notes and other documentation, see the Cisco UCS Manager documents landing page.

To download Cisco UCS Manager Software bundles, see the Software Download landing page.

To provide feedback on this tool, send your comments to ucs-docfeedback@external.cisco.com.

Upgrade	Choose upgrade or downgrade info
4.2(2)	Current release of Cisco UCS Manager
4.3(3)	Target release of Cisco UCS Manager
Current release: 4.2(2)	
Target release: 4.3(3) [2]	
Recommended path: Direct path from Current Re	elease. [Show All]
Procedure:	
 Upgrade the Infrastructure A bundle. After the Infrastructure A bundle is upgraded servers. 	successfully, upgrade the B and C bundles for all
Recommended software for target release:	
Cisco IMC version: 4.3(3)-All M7, All M6, All	м5.

1名支持经理

提交服务请求时,可以通过支持案例管理器获得进一步的固件升级建议(使用固件升级TAC助手工 具时)。



2支持案例管理器

从<u>Cisco软件下载中心</u>网站下载特定交换矩阵互联型号所需的固件捆绑包。

使用您的思科帐户登录以进行下载。

请注意,FI-6454使用的固件映像与FI-64108交换矩阵互联相同,因为它们都是6400系列交换矩阵 互联。

接受思科的一般条款,开始下载。

Q Search	UCS Infrastructure and UCS Manager Software				
Expand All Collapse All	Release 4.3(3a)	Related Links a Release Note for 4.3	nd Documentation		
Suggested Release					
4.3(3a) 📀					
4.2(3j) <mark>O</mark>	File Information	Release Date	Size		
4.1(3m) <mark>O</mark>	The UCS Infrastructure Software Bundle contains: - NX-OS software for the UCS 6332 Fabric Interconnects - Firmware for the	15-Feb-2024	1472.60 MB	+	
Latest Release	 fabric extenders and I/O modules - UCS Manager - Chassis Management Controller - UCSM Capability Catalog. 				
4.3(3c)	ucs-6300-k9-bundle-infra.4.3.3a.A.bin Advisories 📑				
4.2(3) 🔿	The UCS Infrastructure Software Bundle contains: - NX-OS	15-Feb-2024	2602.95 MB		
4.1(3m) 🔿	software for the UCS 6454 Fabric Interconnects - Firmware for the			-	
4.0(4o)	fabric extenders and I/O modules - UCS Manager - Chassis Management Controller - UCSM Capability Catalog.				
All Release	vcs-6400-k9-bundle-infra.4.3.3a.A.bin Advisories				
4.3	> The UCS Infrastructure Software Bundle contains: - NX-OS	15-Feb-2024	2643.70 MB	+	
4.2	software for the UCS 6536 Fabric Interconnects - Firmware for the fabric extenders and I/O modules - UCS Manager - Chassis				
4.1	Management Controller - UCSM Capability Catalog. une 5500-50-bit media-bits 4.3.3 & bits				
4.0	Advisories 🖆				

下载完成后,使用交换矩阵互联集群IP地址或完全限定的域名,使用具有管理员权限的帐户登录到 UCS Manager Web界面。

导航到设备>固件管理>已安装的固件。

展开UCS Manager,并确认正在运行的UCS Manager固件版本。

导航到下载任务,然后点击下载固件。

Main Topology View	Fabric Interconne	cts Servers	Thermal	Decommission	ed 【	Firmware Mana	agement	Policies	Faults
Installed Firmware	Firmware Auto Insta	all Catalog Pa	ckage Do	wnload Tasks	Packa	ges Image	s Up	grade Validation	Faults
Te Advanced Filter	🛧 Export 🛛 🖶 Print	😵 Download Firmw	are						
Filename		Path				Transfer State	e		

5下载任务

在弹出窗口中,点击选择文件

Download Firmware					
 Location of the Image File: Local File System Remote File System 					
Filename : Choose file No file chosen					
■ 6选择文件					
浏览到保存已下载的交换矩阵互联捆绑包的目录,选择Infra A、捆绑包文件,点击打开并确定。					
< >					

ucs-6400-k9-bundle-infra.4.3.3a.A.bin		2,73 GB	Ма
	Cancel	Open	

Kine

Size

7打开文件

Name

在下载的捆绑包已导入到UCS Manager中后,在Actions下点击Firmware Auto Install,选择Install Infrastructure Firmware。

Equipment	
Main Topology View Fabric Interconnects	Servers Thermal Decommissioned Firmware Management Policies Faults Diagnostics
Installed Firmware Firmware Auto Install	Catalog Package Download Tasks Packages Images Upgrade Validation Faults
General FSM	
Status	Infrastructure Firmware
Firmware Installer : 🕈 Ready	Package Version : 4.2(2e)A Backup Version : : Startup Version : 4.2(2e)A Service Pack Running Version : 4.2(2)SP0(Default) Service Pack Startup Version : :
Actions Install Infrastructure Firmware	Owner : Local
Install Chassis Firmware	
Install Server Firmware	
Clear StartUp Version	
Prepare for Firmware Install	

8安装固件

在继续之前,请仔细查看所有警告并解决弹出窗口中的所有待处理问题(如需要)。全选忽略,然后 点击下一步

		Install Infrastructure Firmware	?	×
0	Prerequisites Install Infrastructure Firmware	What happens during this stage: . This wizard will enable you to perform infrastructure firmware upgrade, which would upgrade UCS Manager and the UCS interconnects. . If the backup version is set through Prepare for Firmware Install and is the same as the selected infra firmware version, the backup version is set as the startup version. . If the backup version is not set earlier, the selected firmware version is set as the backup version. . If the backup version is not set earlier, the selected firmware version is set as the backup version. This version is then set startup version. Completing this stage will result in a reboot. The system has performed a sanity check and found the following issues. Suggestions about fixing these issues are also displayed.	i fabric te t as the	
		Warnings 1) Critical and major faults exist. Proceeding without fix might lead the system in unexpected state. Click here to see the existing critical and major faults. 2) Check if any hardware (fabric interconnects, io-modules, servers or adapters) is unsupported in the target release.		-

9全部忽略,下一个

从下拉菜单中选择相应的Infra Pack,并选中Upgrade Now复选框。单击 完成。

		Install Infrastructure Firmware	? ×
	Prerequisites	Firmware System Status Properties	
1	Prerequisites Install Infrestructure Firmware	Firmware System Status Firmware Installer: Actions Cancel Infrastructure Upgrade Infra Pack (a)(3a)A Service Pack: enot set> Force Infrastructure Upgrade Schedule Amin State Untriggered Attinin: Upgrade Now	
		< Prev Next > Finish	Cancel

10立即升级,完成

单击Yes以忽略未选择Service Pack的警告。 Click OK.

Prerequisites	Firmware System Status	Properties
	Firmware Installer : 🕇 Ready	Name : default
Install Infrastructure Firmware	Actions	Description : Infrastructure Pack
		Infra Pack : 4.3(3a)A
		Service Pack : <not set=""></not>
		Force :
		Evacuate ·
Install	I Infrastructure Firmware	×
A Service	e Pack has not been selected, so any Ser	vice Pack if already installed in the system, will be removed.
Press Y or Can	Yes to disregard the warning and submit cel to make changes to the current confi	changes, No to quit the wizard guration.
		No Cancel

要监控升级进度,请点击FSM选项卡。稍后将开始升级。

强烈建议启用Evacuate 选项,以确保在升级过程中数据流在交换矩阵互联之间移动并避免数据流中 断。

这通常首先在辅助交换矩阵互联上完成。

▼ Equipment	General Physical Ports Fans PSUs Physical Display FSM Neighbors Faults Events	s S
Chassis Rack-Mounts	Fault Summary Physical Display	
Fabric Interconnects Fabric Interconnect A (primary) Fabric Interconnect B (subscriptsta)	Image: Constraint of the second sec	
Policies	Status Configure Evacuation ×	
Port Auto-Discovery Policy	Overall Status : • Operab Thermal : • OK Ethemet Mode : End Host FC Mode : End Host Admin Evac Mode : On Oper Evac Mode : Off	F
	Actions Configure Evacuation Configure Unified Ports Internal Fabric Manager	
	LAN Uplinks Manager Access NAS Appliance Manager	
	SAN Uplinks Manager High Availability Details	
	SAN Storage Manager	

12配置和应用

验证路径是否正常工作(从UCS角度)以及任何虚拟路径和/或虚拟机、虚拟NIC或HBA。

这可确保流量在升级过程中不受影响。

如果有任何vNIC或vHBA发生故障,请在升级前检验影响并解决该问题。

根据设计,UCS基础设施升级会在辅助交换矩阵互联上启动升级。

当辅助交换矩阵互联即将完成升级时,UCS系统会临时注销您。

发生这种情况的原因是UCS Manager正在升级且管理流程已关闭,但是数据层面保持运行,因为它 从管理层面分离。

如果配置了SNMP,您可能会收到有关管理平面状态的警报。

这是正常现象,因此建议在升级期间禁用SNMP通知,并在完成练习之后重新启用。

一旦系统再次可用,UCS Manager组件的升级就完成。

通过FSM选项卡,您可以重新登录到UCS Manager以监控其余的升级

Al +	Equipment					
Equipment	Main Topology View Fabric	c Interconnects Servers T	vermal Decommissioned	Firmware Management Pol	icies Faults Diagnostics	
* Chassis	Installed Firmware Firmwa	re Auto Install Catalog Packag	e Download Tasks Packa	ages Images Upgrade \	Validation Faults	
Chassis 1	General FSM					
 Hack-Mounts 	FoM Status :	In Progress				
 Fabric Interconnects 	Description					
 Fabric Interconnect A (primary) 	Current FSM Name :	Deploy				
Fabric Interconnect B (inapplicable)	Comdeted at					
	Progress Status :		90%			
* Poices	Remote Invocation Result :	Not Applicable				
Port Auto-Discovery Policy	Remote Invocation Error Code :	None				
	Remote Invocation Description :					
	⊖ Step Sequence					
	Order	Name	Description	Status	Timestamp	Retried
	1	Deploy Wait For Deploy	Waiting for Deploy to begin(F	Success	2024-05-18T11:35:31Z	0
	2	Deploy Resolve Distributable	Resolving distributable name	Skip	2024-05-18T11:35:31Z	0
					2024-05-18711-25-217	

13固件自动安装

从属交换矩阵互联及其对应的机箱IO模块随后完成各自的升级。

All 👻	Equipment /	Fabric In	terconnec	ts / Fabr	ic Interc	onnect B (inapplicab	le)	
▼ Equipment	General	Physica	al Ports	Fans	PSUs	Physical Display	FSM	Neighbors
 ▼ Chassis ▼ Chassis 1 (2) 	Fault Sum	nary			_	Physical Display		
 Fans IO Modules 	1	V 2	<u>▲</u> 0	1				•
IO Module 1 IO Module 2	Status					Up Admin Dov	vn 📕 Fail 📕	Link Down
PSUs Servers	Overall Status : ♥ Inoperable Thermal : ↑ OK Ethernet Mode : End Host FC Mode : End Host					Name : B Product Name : Cisco UCS 6454		
Rack-Mounts						Vendor : Cisco Systems, Inc.		tems, Inc.
Fabric Interconnect A (primary)	Admin Eva Oper Evac	Mode :	Off Off			Available Memory :	55.560 (GI	B)
Fabric Interconnect B (inapplicable) Policies	Actions					Locator LED :	•	
Port Auto-Discovery Policy	Configure I Configure I Internal Fat	Evacuation Unified Por pric Manag	rts ier			+ Local Storag	ge Informa	ation

14交换矩阵互联

完成后,通过选择subordinateFabric Interconnect验证新固件版本是否安装在subordinateFabric Interconnect上

(在这种情况下,导航窗格中的Equipmentsection处显示Fabric InterconnectBin)。

向下滚动Generaltab下方。在Firmwarection中,观察从属交换矩阵互联上新安装的固件版本。

Al v	Equipment / Fabric Interconnects / Fabric Interco	onnect B (subordinate)	Pending Activities ×	
Equipment	General Physical Ports Fans PSUs	Physical Display FSM Neig	There are activities in the system requiring reboot. Click the Pending Activities button on the toolbar to acknowledge	
* Chassis	Configure Unified Ports	Local Storage Information	Do not show again	
 Chassis 1 () 	Internal Fabric Manager			_
 Rack-Mounts 	LAN Uplinks Manager	Access		
 Fabric Interconnects 	NAS Appliance Manager			
 Fabric Interconnect A (primary) 	SAN Uplinks Manager	High Availability Details		
Fabric Interconnect B (subordinate)	SAN Storage Manager	(A) VI AN Part Count		
* Policies	Enable Ports *	() appear port coolin		
Port Auto-Discovery Policy	Disable Ports *	FC Zone Count		
reconstruction from y				
	Set Ethernet Switching Mode	Firmware		
	Set FC End-Host Mode			
	Set FC Switching Mode	Boot-loader Version : v05.47[04/3	18/2022)	
	Activate Firmware	Sustem Version : 9.3(5)(43(3)		
	Management Interfaces	Service Pack Version : 4.3(3)SPO(~/ Default)	
	Turn on Locator LED	Package Version 4.3(3a)A		
	Install Secure FPGA	Startus Kernel Version : 0.3(5)(43(3)		
		Activate Status : Ready	~	
		Startup System Version : 9.3(5)(43(34	۵	
		Activate Status : Ready		
		Startup Service Pack Version : 4.3(3)	SP0(Default)	
		Activate Status : Ready		

14交换矩阵互联

为了实现完整性,主交换矩阵互联需要升级并重新启动。

存在需要重新启动才能进行有效更改的警报。



注意:这是一个关键步骤。在重新引导交换矩阵互联A之前,验证所有路径均以物理和虚拟 方式运行以及两个交换矩阵互联的高可用性。

这是确保成功和避免任何停机或中断的关键。操作系统或虚拟机似乎正在运行,但其辅助路径未完 全启动。

如果出现这种情况,则在交换矩阵互联A重新启动后,操作系统或虚拟机可能由于无法找到路径而 失去连接。

所有都验证完毕后,继续安全地重新启动交换矩阵互联A。

点击右上角的Pending Activities弹出窗口

	6	€ (
	Pending Activities	
Decommissi	There are activities in the system requiring reboot. Click the Pending Activities button on the toolbar to acknowledge.	
	Do not show again	

14交换矩阵互联

选择交换矩阵互联。 单击Reboot Now。 在弹出窗口中选择Yes,然后单击OK关闭弹出窗口。

User Acknowledged Activities Service Profiles Fabric Interconnects Service Profiles Fabric Interconnects Actions Reboot now Pending Disruptions : defaultValue Pending Changes : O Details Modified at : 2024-05-18T03:21:02Z Acknowledgment State : Waiting For User Schedule : for Eboot	Pending Ac	tivities			×
Service Profiles Fabric Interconnects Servers Chassis Profiles Actions Reboot now Pending Disruptions : defaultValue Pending Changes : Potalls Modified at : 2024-05-18T03:21:02Z Acknowledgment State : Waiting For User Schedule : fn-reboot	User Acknowledg	ed Activities Scl	neduled Activities		
Actions Reboot now Pending Disruptions : defaultValue Pending Changes : O Details Modified at : 2024-05-18T03:21:02Z Acknowledgment State : Waiting For User Schedule : fn-reboot	Service Profiles	Fabric Interconne	cts Servers	Chassis Profiles	
Rebogt now Pending Disruptions : defaultValue Pending Changes : O Details Modified at : 2024-05-18T03:21:02Z Acknowledgment State : Waiting For User Schedule : fn-reboot	Actions				
Pending Disruptions : defaultValue Pending Changes :	Reboot now				
Details Modified at : 2024-05-18T03:21:02Z Acknowledgment State: Waiting For User Schedule : fi-reboot	Pending Disruptions Pending Changes	s: defaultValue :			
Modified at:2024-05-18T03:21:02ZAcknowledgment State :Waiting For UserSchedule ::fi-reboot	 Details 				
	Modified at Acknowledgment S Schedule	: 2024-05-18Tr State : Waiting For U : fi-reboot	03:21:02Z ser		

ОК	Cancel	Help

此操作将重新启动主交换矩阵互联以完成固件升级。

在此重新引导过程中,系统的集群领导角色由从属设备接管,因此您会暂时从UCS Manager注销。

UCS Manager	🚫 ^C	onnection Error	
	Equipment	e to connect to the server. The applicati	on will now exit.
Equipment	Main Topology View Fabric In		Anagement Policies
* Chassis	Installed Firmware Firmware Auto install	Catalog Package Download Tasks	Packages mages Upgrade Validation
Chassis 1 🚫	General FSM		
 Rack-Mounts 			
* Fabric Interconnects	Status	Infrastructure Firmware	,
Fabric Interconnect A (primary) 📀	Firmware Installer : OIn Progress	Package Version	: 4.3(3a)A,4.2(2e)A
 Fabric Interconnect B (subordinate) 		Backup Version	:
· Dolinias	k	Startup Version	: 4.3(3a)A
- Follows		Service Pack Running W	ersion : 4.3(3)SP0(Default),4.2(2)SP0(Default)
Port Auto-Discovery Policy		Service Pack Startup Ve	rsion :
	Actions	Owner	: Local
	Install Infrastructure Firmware		
	Install Chassis Firmware		
	Install Server Firmware		

18连接错误

恢复对UCS Manager GUI的访问后,重新登录。

再次监控FSM,以验证升级进度。

Equipment	Main Topology View	Fabric Interconnects	Servers Therma	Decommissioned	Firmware Management	Policies Fau	its Diagnostics
Chassis	Installed Firmware	Firmware Auto Install	Catalog Package	Download Tasks Pac	kages Images Up	ograde Validation	Faults
Chassis 1 😗	General FSM						
* Rack-Mounts	FSM Status	: In Progress					
Enclosures	Description	:					
FEX	Current FSM Name	Deploy					
Servers	Completed at	-					
- Education	Progress Status	:		90%			
Faonc Interconnects	Remote Invocation Result	Not Applicable					
 Fabric Interconnect A (subordinate) S 	Remote Invocation Error	Code : None					
 Fabric Interconnect B (primary) 	Remote Invocation Descr	ription :					
* Policies	 Step Sequence 						

19个交换矩阵互联A

升级完成后,previousprimaryFabric Interconnectassuussums在集群中配置子角色。

确认

要验证UCS Manager升级是否成功,请在导航窗格的设备部分选择交换矩阵互联。

在Installed Firmware选项卡下,点击展开所有加号(+)图标。

Cisco UC		Equipment / Fabric Interconnects					
	Equipment Chassis	Fabric Interconnects IO Modules	Thermal Power Fans	Capability Catalog	s Events Performance		0
ಕೆಕ	 Rack-Mounts 	Name	Model	Package Version	Running Version	Startup Version	Activate Status
	Fabric Interconnects	w UCS Manager					
-	 Fabric Interconnect A (subordinate) 	UCS Manager Service Pack	(4.3(3)SP0(Default)	4.3(3)SP0(Default)	Ready
=	 Fabric Interconnect B (primary) 	UCS Manager System		4.3(3a)A	4.3(3a)	4.3(3a)	Ready
	 Policies 						
	Port Auto-Discovery Policy	¥ Fabric Interconnect A (subordi	Cisco UCS 6454				
1		Kernel		4.3(3a)A	9.3(5)43(3a)	9.3(5)43(3a)	Ready
-0		Service Pack			4.3(3)SP0(Default)	4.3(3(SP0(Default)	Ready
		System		4.3(3a)A	9.3(5)+43(3a)	9.3(5)(43(3a)	Ready
		¥ Fabric Interconnect 8 (primary)	Cisco UCS 6454				
		Kernel		4.3(3a)A	9.3(5)43(3a)	9.3(5)(43(3a)	Ready
		Service Pack			4.3(3)SP0(Default)	4.3(3(SP0(Default)	Ready
		System		4.3(3a)A	9.3(5)+43(3a)	9.3(5)(43(3a)	Ready

20个安装的固件

UCS Manager已成功升级。

如果以前配置了疏散设置,请记住现在禁用它。

Enclosures	\otimes	V			ere frener
FEX	0	0	0		
Servers				Up 📕 Admin Down 📕 Fail 📕 Link Down	
* Fabric Interconnects	Status			Configure Evacuation ×	
 Fabric Interconnect A (subordinate) 	Overall Sta	tus :	† Operat		
Fabric Interconnect B (primary)	Thermal		† ОК	Configure Evacuation	
	Ethernet M	ode :	End Host	Artmin Fusc Mode : On C Off	F
* Policies	FC Mode		End Host		
Port Auto-Discovery Policy	Admin Eva	Mode :	On	Force : U	5
	Oper Evac	Mode :	On		Т
	Antions				
	Actions				
	Configure E	vacuatio	•	OK Apply Cancel Help	
	Configure U	nified Po	orts	(+) Local Storage information	
	Internal Fab	ric Mana	ger		

21管理模式关闭

如果需要,您可以在local-mgmt模式下使用以下CLI命令更改集群领导:

#cluster领导a

FI-B# connect local-mgmt Cisco Nexus Operating System (NX-OS) Software TAC support: http://www.cisco.com/tac Copyright (c) 2009, Cisco Systems, Inc. All rights reserved. The copyrights to certain works contained in this software are owned by other third parties and used and distributed under license. Certain components of this software are licensed under the GNU General Public License (GPL) version 2.0 or the GNU Lesser General Public License (LGPL) Version 2.1. A copy of each such license is available at http://www.opensource.org/licenses/gpl-2.0.php and http://www.opensource.org/licenses/lgpl-2.1.php

-FI-B(local-mgmt)# cluster lead a

22 Connect集群主管

键入Yes继续。然后,您会暂时从CLI和GUI实例注销。

重新登录到UCS Manager,以验证集群主用设备现在是否为以前的主交换矩阵互联。

UCS Manager升级现已完成。

关于此翻译

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