# 更換HA對中的安全防火牆管理中心

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### 簡介

本文說明如何在高可用性(HA)對中更換有故障的安全防火牆管理中心。

必要條件

需求

思科建議您瞭解以下主題:

• 思科安全防火牆管理中心(FMC)

採用元件

本文中的資訊係根據以下軟體和硬體版本:

• 在HA模式下執行版本7.2.5 (1)的Cisco Secure Firewall Management Center (FMC)

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。

### 設定

#### 解決方案1

#### 第1步:將運行單元指定為活動單元。有關詳細資訊,請參閱<u>Management Center高可用性對中的</u> <u>交換對等體</u>。

Firew Integral	rall Management Center son / Other Integrations / High Availability	Devices Integration	_				Q 🧳 Q 🛛 admin • 🔤 🚓 SECURE
Cloud Service	s High Availability eStreamer	Host Input Client					Peer Manager
						Switch Peer Roles	Break HA     II Pause Synchronization
	Summary				System Status		
	Status		Degraded- Synchronization in     (No connection between high availability Management	complete Centers )		Local Standby - Secondary (10.28.1.150)	Remote Active - Primary (10.28.1.149)
	Synchronization			A Failed	Operating System	725	7.2.5
	Active System		10. ( HA synchronization time : Thu Apr 11 20:31:	28.1.149 24.2024 )	Software Version	7.2.5.1-29	7.2.5.1-29
	Standby System		( HA synchronization time : Thu Apr 11 20:30:0	28.1.150 08.2024 )	Model	Secure Firewall Management Center for VMware	Secure Firewall Management Center for VMware
Firev	vall Management Center	Perior Internation					
Yel integra	son / Other Integrations / High Availability	Unices Integration	_				admin • and secure
Cloud Service	s High Auslability eStreamer	Host Input Client					Peer Manager
						Switch Peer Roles	Break HA     II Pause Synchronization
	Summary				System Status		
	Status	( No connection between hig	Degraded - Synchronization in the availability Management Centers , Database is not numinavailability availability	complete ng in high ty mode )		Local Standby - Secondary (10.28.1.150)	Remote Active - Primary (10.28.1.149)
	Synchronization			A Failed	Operating System	7.2.5	7.2.5
	Active System		10. ( HA superiorization time : The Apr 11 20 31 3	28.1.149	Software Version	7.2.5.1-29	7.2.5.1-29
	Standby System		10 ( HA synchronization time : Thu Apr 11 20:30 (	28.1.150 08.2024.)	Model	Secure Firewall Management Center for VMware	Secure Firewall Management Center for VMware
						Switching Roles	o
				Warning This operation may affect o the background. Do you wa	ritical processes running in nt to continue?	Active Management Center is unavailable. Making this Manageme Center active will cause spilt brain, when the old active comes up. Do y want to continue?	nt

第2步:重新映像新裝置以匹配活動裝置的軟體版本。有關詳細資訊,請參閱<u>重新映像Cisco安全防</u> <u>火牆管理中心的硬體型號</u>。

第3步:將資料備份從故障裝置恢復到新的管理中心。導航到System > Backup/Restore,上傳備份 檔案,並將其還原到新裝置。

Firewall Management Center Overview System / Tools / Backup Management	Analysis	Policies Devic	ces Objects	Integration			Dep	коу Q 💕 Ф 🗃 (	admin •	SECURE
									Re	note Storage
Backup Management Backup Profiles										
						Firewall Management	t Backup	Managed Device Back	tup Uplo	ed Backup
				<ul> <li>Info New backups found on system. Importing × backup information.</li> </ul>						
Firewall Management Backups										
System Information		Date Created		File Name	VDB Version	Location Si	ize (MB)	Configurations	Events	TID
Secure Finewall Management Center for VMware v7.2.5.1		2024-04-11 16:	50:31	Backup_Active_00-2024-04-10T23-07-42.tar	build 353	Local 2	50 1	Ves	Yes	Yes
Score Firewall Management Center for VMware v7.2.5.1		2024-04-11 16:	22-24	Backup_NewUnit_00-2024-04-11120-17-36.tar	build 353	Local 2	36 1	Ves	Yes	Yes
Restore Detelle More More More PN)										



第4步:如有必要,更新與活動單元相同版本的地理定位資料庫(GeoDB)更新、漏洞資料庫(VDB)更 新和系統軟體更新,以確保一致性。

### Active Unit

New Unit

Firewall M	RE lanagement Center	Firewall M	RE lanagement Center
Version 7.2.5.1 (build 29 Model Serial Number Snort Version Rule Pack Version Module Pack Version LSP Version VDB Version Rule Update Version Geolocation Update Version OS	b)         Secure Firewall Management Center for VMware           None         2.9.20 (Build 5100)           3.1.21.501 (Build 26)         2655           3019         Isp-rel-20220511-1540           build 353 (2022-03-07 22:13:19)         2022-01-06-001-vrt           ion         Country Code: 2022-05-11-103, IP: None           Cisco Firepower Extensible Operating System (FX-OS)         2.12.0 (build 519)	Version 7.2.5.1 (build 29 Model Serial Number Snort Version Rule Pack Version Module Pack Version LSP Version Rule Update Version Geolocation Update Vers OS	<ul> <li>Secure Firewall Management Center for VMware None</li> <li>2.9.20 (Build 5100)</li> <li>3.1.21.501 (Build 26)</li> <li>2655</li> <li>3019</li> <li>Isp-rel-20220511-1540</li> <li>build 353 (2022-03-07 22:13:19)</li> <li>2022-01-06-001-vrt</li> <li>country Code: 2022-05-11-103, IP: None</li> <li>Cisco Firepower Extensible Operating System (FX-OS</li> <li>2.12.0 (build 519)</li> <li>firepower</li> </ul>
For technical/system question 1-408-526-7209. Copyright	ns, email tac@cisco.com phone: 1-800-553-2447 or 2004-2023, Cisco and/or its affiliates. All rights reserved.	For technical/system questio 1-408-526-7209. Copyright	ns, email tac@cisco.com phone: 1-800-553-2447 or t 2004-2023, Cisco and/or its affiliates. All rights reserved.
Сору	Close	Copy	Close

第5步:一旦更新完成,兩個單元都可以顯示活動狀態,這可能導致高可用性大腦分裂狀態。

第6步:繼續將持續運行的裝置手動設定為活動狀態。這樣它就可以將最新的配置同步到替換單元。

Fin Fin	ewall Manage gration / Other Integ	ment Center rations / High Availabilit	Overview	Analysis	Policies	Devices	Objects	Integration	on						Deploy	۹.	¢ 0	e admi	in • SEC
																			Peer Manag
Cloud Serv	ices Realms	Identity Sources	High Availability	eStreamer	Host Input	Client Sm	art Software	Manager On	-Prem						_				
														E2 Moke Me Active	Ø,	reak HA		II Pause	Synchronization
									This high availab	ility pair is in split b	rain. Make one Management Cer	nter active by clicki	ing 'Make Me Active'. 🗙						
	Summary										System Status								
	Status				🔺 Spir	Brain - Mana; ( Database	pement Cente is not config	er is active or gured for high	n both peers. h availability )				Local Split Brain - Se (10.28.1.	condary	Split	Remot Brain -	Primary		
	Synchronizati	on							🔺 Failed		Operating System		7.2.5			7.2	5		
	Active System	,			(14	A synchronized	ion time : Th	w Apr 11 213	10.28.1.150 03:25 2024 )		Software Version		7.2.5.1	29		7.2.5.1	-29		
	Standby Syste	en.			(H	A synchronizal	ion time : Th	w Apr 11 21:	10.28.1.149 03:00 2024 )		Model	Sec	cure Firewall Manageme	ent Center for VMware	Secure Firewa	I Manag VMwa	pement ( Ire	Jenter for	

High Availability eStreamer Host Input Client Smart Software Manager	On-Prem			
			Make Me Active	Break HA
	This high availabili	ty pair is in split brain. Make one Management Cent	ter active by clicking 'Make Me Active'. $\times$	
		System Status		
Split Brain - Management Center is active ( Database is not configured for h	on both peers. igh availability )		Local Split Brain - Secondary (10.28.1.150)	Remote Split Brain - Prima (10.28.1.149)
	A Failed	Operating System	7.2.5	7.2.5
(HA synchronization time : Thu Apr 11 2	10.28.1.150 11:03:25 2024 )	Software Version	7.2.5.1-29	7.2.5.1-29
(HA synchronization time : Thu Apr 11	10.28.1.149 11:03:00 2024 )	Model	Secure Firewall Management Center for VMware	Secure Firewall Managemen VMware
			Make Me Active	
	Warning		Do you want to make this Management	
	This operation the backgroup	on may affect critical processes running in und. The local peer will be active and the	Center active and peer standby?	
	other peer v overwrite co standby pee	vill become a standby. The active peer will infiguration and policies present on the ir. Do you want to continue?	Cansel	
	_	No		

第7步:成功同步後(可能需要一些時間),導航到活動單元的Web介面。然後更改角色,將新裝 置定位為活動裝置。

解決方案2

更換故障裝置而不進行備份的方法

第1步:將運行單元指定為活動單元。有關詳細資訊,請參閱<u>Management Center高可用性對中的</u> <u>交換對等體</u>。

Firewall Management Center Integration / Other Integrations / High Availability	Devices Integration			Q. 💕 🌣 🛛 admin • 🛛 👬 SECURE
Cloud Services High Availability eStreamer	Host Input Client			Peer Manager
			Switch Peer Role	es 🛛 🏟 Break HA. 🔲 Pause Synchronization
Summary		System Status	/	
Status	Degraded- Synchronization incomplete     (No connection between high availability Management Centers , Database is not running in high     availability mode )		Local Standby - Primary (10.28.1.149)	Remote Active - Secondary (10.28.1.150)
Synchronization	A Falled	Operating System	725	7.2.5
Active System	10.28.1.150	Software Version	7.2.5.1-29	7.2.5.1-29
Standby System	( HA synchronization time : Thu Apr 11 21:55:43 2024 ) ( HA synchronization time : Thu Apr 11 21:54:42 2028 ) ( HA synchronization time : Thu Apr 11 21:54:42 2028 )	Model	Secure Firewall Management Center for VMware	Secure Firewall Management Center for VMware
	Warning This operation may affect critical processes in the background. Do you want to continue?		Switching Roles  Active Management Center is unswalable. Making this Management Center active will cause split brain, when the old active comes up. Do you want to continue?  Cancel Cancel	

第2步:重新映像新裝置以匹配活動裝置的軟體版本。有關詳細資訊,請參閱<u>重新映像Cisco安全防</u> <u>火牆管理中心的硬體型號</u>。

第3步:如有必要,更新與活動單元相同版本的地理定位資料庫(GeoDB)更新、漏洞資料庫(VDB)更

#### 新和系統軟體更新,以確保一致性。

**Operational Unit** 

### Replacement



第4步:使用活動管理中心的Web介面中斷HA。出現提示時,選擇Manage registered devices from this console選項。

Fires	vall Management Center ston / Other Integrations / High Availabl	Ry Overview Analysis Policies Devices Object	ts Integration			Deploy Q 💕 Ö 🙆 admin • 📩 📩 SECURE
Cloud Servic	es Realms Identity Sources	High Availability eStreamer Host Input Client Smart Softw	are Manager On-Prem			Peer Manager
					Switch Peer Role	Break HA
	Summary			System Status		
	Status	Degraded     In connection between high availability Management Centers , D	Synchronization incomplete stabase is not configured for high availability )		Local Active - Primary (10.28.1.149)	Remote Standby - Secondary (10.28.1.150)
	Synchronization		A Failed	Operating System	7.2.5	7.2.5
	Active System	(168 suscitonsitation time -	10.28.1.149	Software Version	7.2.5.1-29	7.2.5.1-29
	Standby System	(HA synchronization time :	Break HA	0	Secure Firewall Management Center for VMware	Secure Firewall Management Center for VMware
			How do you want to manage. Manage registered dev Manage registered dev Step managing register All devices will be unregistered	devices after breaking high availability? wices from this console. where from peer console. end devices from both consoles. et from peer console.		

第5步:透過將運營管理中心配置為主要單元,將替換單元配置為輔助單元,重新組態管理中心 HA。有關詳細說明,請參閱<u>建立管理中心高可用性。</u>



註:重新建立HA時,來自主管理中心的最新配置將與輔助管理中心同步。傳統許可證和智 慧許可證都旨在實現平穩整合。

## 驗證

使用本節內容,確認您的組態是否正常運作。

同步完成後,預期輸出為Status Healthy,並且同步OK。

Firew Integral	all Management Center Over	iew Analysis	Policies Devices Objects Integration			Deploy Q 🧬 🖄 🙆 admin • 📩
Cloud Service	s Realms Identity Sources High Availab	ity eStreamer	Host Input Client Smart Software Manager On-Prem			Peer Manager
					Switch Peer Role	Break HA II Pause Synchronization
	Summary			System Status		
	Status		<ul> <li>Healthy</li> </ul>		Local Active - Primary	Remote Standby - Secondary
	Synchronization		O OK		(10.28.1.149)	(10.28.1.150)
	Active System	ctive System		Operating System	7.2.5	7.2.5
			(HA synchronization time : Thu Apr 11 20:11:21 2024 )	Software Version	7.2.5.1-29	7.2.5.1-29
	Standby System		10.28.1.150 ( HA synchronization time : Thu Apr 11 20:10:03 2024 )	Model	Secure Firewall Management Center for VMware	Secure Firewall Management Center for VMware

由於此過程可能需要一段時間,因此主裝置和輔助裝置仍在同步。在此期間,請確保您的裝置已正 確列在主要和輔助裝置上。

此外,還可以透過CLI執行驗證。這可以透過連線到CLI、切換到專家模式、提升許可權以及運行以 下指令碼來實現:

<#root>

fmc1:/Volume/home/admin#

troubleshoot\_HADC.pl

1 Show HA Info Of FMC

2 Execute Sybase DBPing

- 3 Show Arbiter Status
- 4 Check Peer Connectivity
- 5 Print Messages of AQ Task
- 6 Show FMC HA Operations History (ASC order)
- 7 Dump To File: FMC HA Operations History (ASC order)
- 8 Last Successful Periodic Sync Time (When it completed)
- 9 Print HA Status Messages
- 10 Compare active and standby device list
- 11 Check manager status of standby missing devices
- 12 Check critical PM processes details
- 13 Help
- 0 Exit

<#root>

fmc1:/Volume/home/admin#

troubleshoot\_HADC.pl

1 Show HA Info Of FMC

2 Execute Sybase DBPing 3 Show Arbiter Status 4 Check Peer Connectivity 5 Print Messages of AQ Task 6 Show FMC HA Operations History (ASC order) 7 Dump To File: FMC HA Operations History (ASC order) 8 Help 0 Exit

有關更多詳細資訊,請參閱<u>驗證Firepower模式、例項、高可用性和可擴充性配置</u>。

## 疑難排解

目前尚無適用於此組態的具體疑難排解資訊。

## 相關資訊

- Cisco Secure Firewall Management Center Administration Guide, 7.4。高可用性
- <u>思科技術支援與下載</u>

#### 關於此翻譯

思科已使用電腦和人工技術翻譯本文件,讓全世界的使用者能夠以自己的語言理解支援內容。請注 意,即使是最佳機器翻譯,也不如專業譯者翻譯的內容準確。Cisco Systems, Inc. 對這些翻譯的準 確度概不負責,並建議一律查看原始英文文件(提供連結)。