在Intersight管理模式域中配置直連儲存。

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簡介

本文檔介紹為Intersight管理模式(IMM)域配置直連儲存(DAS)。

必要條件

需求

思科建議您瞭解以下主題:

- UCS和IMM知識
- 儲存區域網路(SAN)
- 光纖通道概念

採用元件

本文中的資訊係根據以下軟體和硬體版本:

- UCS-FI-6454,韌體4.2(1I)
- UCSX-210C-M6,韌體4.2(1I)

♦ 註:Intersight託管模式支援的最低韌體版本為4.1(3)。

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。

背景資訊

嘗試此組態之前,請確保符合以下要求:

- 虛擬儲存區域網路(VSAN)ID
- 乙太網光纖通道(FCOE)VLAN ID
- 啟動器和目標的全球通用埠名稱(WWPN)
- 邏輯單元號(LUN)ID

伺服器和域配置檔案配置,所需的策略和池包括:

- VSAN策略
- 埠策略
- 啟動順序策略
- SAN連線策略
- WWPN池
- 光纖通道區域策略

直接連線儲存(DAS)

IMM管理的伺服器能夠像UCSM一樣構建區域資料庫。使用DAS時,無需使用光纖交換機來推動分 區。此示例使用以下拓撲:



拓撲

設定

1. UCS域配置檔案

步驟 1.配置VSAN策略。

• 導覽至Policies > Create Policy,然後選擇VSAN。

≡	cisco Intersight	s Infrastructure Service \checkmark		Q Search	0 💿	¢] 🕄	Q 0 330 A 266	0	A
() ()	Overview Operate	← Policies Create							
ء,	Servers Chassis Chassis Fabric Interconnects HyperFlex Clusters Integrated Systems Configure Profiles Policies Policies	Filters Platform Type All UCS Server UCS Chassis HyperFlex Cluster Kubernetes Cluster	Q, VSAN						
			Cancel					Sta	irt

選擇UCS域配置檔案,然後選擇VSAN

- 命名策略並向其中新增所需的VSAN。此範例使用VSAN-A 100和FCOE VLAN 1000。
- 選擇Storage for VSAN Scope。

≡	disco Intersight	*	🖇 Infrastructure Service 🗸		Q Search	0 01	A 33 D 0	30 🔺 266 🛛 🤇	୭ାନ
() ()	Overview Operate	^	Policies > VSAN Create						
	Servers Chassis		General	Policy Details	_				
	Fabric Interconnects HyperFlex Clusters Integrated Systems		Policy Details	Add VSAN Name * DAS-100	٥				
,e	Configure Profiles Templates	^		VSAN Scope © Storage & Uplink © • St VSAN ID *	orage O Uplink O	0 items found	10 ∽ per page ເຂັ FCoE VI	0 of 0 > 의 AN ID	0
	Policies			FCoE VLAN ID * 1000	1 - 4093 C •	VAILABLE			
					Cancel Add				
				< Cancel				Back	Create

DAS配置需要儲存VSAN。

♦ 注意:DAS網路需要使用VSAN範圍儲存。

• 導覽至Policies > Create Policy, 然後選擇Port。

≡	cisco Intersight	🖧 Infrastructure Service 🗸		Q Search	0 💿	¢J 3	Q 0 331 A 266	0	R
*	Chassis Fabric Intersight HyperFlex Clusters Integrated Systems Configure Profiles	 Policies Create Filters Platform Type All UCS Server UCS Chassis 	Port Port Port	Q Search		4	Q 0 331 2265	0	<u>م</u>)
	Templates Pools	HyperFlex Cluster	Cancel					Star	t

建立埠策略

- 輸入名稱,然後從清單中選擇Switch型號。然後,配置統一埠或分支埠(如果需要)。
 - 在埠角色中選擇FC儲存所需的埠,然後按一下配置。



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連線埠角色
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🔎 提示:如果需要,請在此步驟中將其他介面配置為伺服器埠或乙太網上行鏈路埠。

• 選擇Role as FC Storage、Admin speed和所需的VSAN。

≡	eisco Intersight	Infrastructure Service $$			Q Search	000 \$	13 D 0 330 A 266	ଡ
() ()	Overview Operate	Policies > Port > DAS-Port-IMM64	54					
	Servers Chassis		Configure (2 Ports)					
	Fabric Interconnects		Configuration					
	HyperFlex Clusters		Selected Ports Port 1, Port 2					
	Integrated Systems		Role FC Storage	<u> </u>				
.0	Configure ^		i o otologe					
	Profiles		Admin Speed	VSAN ID *	A 0			
	Templates		100003	100	1 - 4093			
	Policies							
	Pools							
		Cancel						Save

步驟1.3配置交換機控制策略

在UCS域中,FC交換模式可以是終端主機或交換機。交換模式允許交換矩陣互聯直接連線到儲存裝置。光纖通道交換機模式在沒有SAN的機型中非常有用(例如,直接連線到儲存的單個Cisco UCS系統)。交換機控制策略為IMM域配置FC交換模式。

• 導覽至Policies > Create Policy, 然後選擇Switch Control。

≡	cisco Intersight	📌 Infrastructure Service 🗸		Q Search	001 43	3 Q 0 330 A 266	0	<u>8</u>
() ()	Overview Operate	<pre></pre>						
	Servers Chassis Fabric Interconnects HyperFlex Clusters Integrated Systems	Platform Type	Switch Switch Control					
پ ر	Configure / Profiles / Policies /	UCS Server UCS Domain UCS Chassis HyperFlex Cluster Kubernetes Cluster						
			Cancel				Star	t

交換機控制策略

≡	cisco Intersight	» •	nfrastructure Service $$		Q Search	0 💿	\$]	Q 0 330 A 266	0	R
() ()	Overview Operate	^	Policies > Switch Control							
ې	Servers Chassis Fabric Interconnects HyperFlex Clusters Integrated Systems Configure Profiles Templates	^	 General Policy Details 	I	General Add a name, description and tag for the policy. Organization * default v Name * DAS-Switch-Control-IMM6454					
	Pools			K	Cencel				Nex	ĸŧ

交換機控制策略名稱

• 選擇FC交換機模式,然後按一下建立。

≡	intersight	📽 Infrastructure Service 🗸	C) Search	Ø 💿 1 🛱 🚳	Q 0 330 A 266	ଡ
(Ø) (Ø)	Overview Operate	Policies > Switch Control Create					
	Servers Chassis Fabric Interconnects	General Policy Details	Policy Details Add policy details • This policy is applicable only for UCS D	pmains			
	HyperFlex Clusters		Switching Mode	FC ©			
	Profiles Templates		End Host Switch VLAN Port Count Enable VLAN Port Count Optimization	End Host Switch			
	Policies		MAC Address Table Aging Time Default Custom Default Accustom	Never	the End Hert mode		
			Link Control Global Settings	ss aging time to 14500 seconds for	the End Host mode.		
		<	2 - 0 Cancel			Back	Create

FC交換機模式

步驟1.4編輯或建立域配置檔案

• 現在,您可以將策略新增到域配置檔案中。轉至Profiles頁籤> UCS Domain Profiles > Edit

Domain profile(如果配置檔案已存在)或Create域配置檔案,然後向域配置檔案新增所需的 策略。

2.伺服器配置檔案

步驟2.1建立伺服器配置檔案。

- 導航到Policies頁籤> Create UCS Server Profile。
- 輸入名稱並選擇目標平台。

第2.2步建立San連線策略

- 將現有San連線策略連線到配置檔案或建立一個新策略
- 輸入策略的名稱。
- 選擇WWNN池並新增所需的VHBA。

≡	eisco Intersight 🍂	Infrastructure Service 🗸		Q se	earch	⊘ 💷 🕫 📧	Q (0167) (A 62)	ଡ ନ
:@:	Overview	Policies > SAN Connectivity > DAS-SAN-Con	n					
© ©	Operate ^ Servers - Chassis - Fabric Interconnects - HyperFlex Clusters - Virtualization - Integrated Systems - Analyze ^ Explorer New Configure ^ Profiles -	Oeneral Policy Details	Policy Details Add policy details Manual vHBAs Placement WWNN Pool Static WWNN Pool * 0 Selected Pool WWNN_POOL × o for manual placement option you ne Add vHBA	Auto vHBAs Placement	Learn more at Help Center		Graphic vHBA	sEditor
	Templates Policies Pools	¢	Add VHBA Add Filter Name Slot ID VHBA0 Auto VHBA1 Auto	: Switch ID A B	C Export 2 litens fr PCI Order : P 0 - 1 -	ound <u>50 v</u> per pag Vin Group :	Graphic vHBA o K C 1 of 1 > 2 WWPN Pool UCSX-A-WWPN UCSX_WWPN_B K C 1 of ack Save Save	s Editor

San連線策略

第2.3步配置VHBA設定

• 使用所需的配置(如Name、WWPN)和其他介面卡策略編輯VHBA。

≡	tisco Intersight	. ** Ir	nfrastructure Service 🗸		Q Search	\odot \bigcirc	¢] 🔢	Q (0 167) (A 62)	0	۹
:¢:	Overview		Policies > SAN Connectivity > DAS-SAN-Conn Edit							
0	Operate Servers	^	Edit vHBA							
	Chassis Fabric Interconnects			General Name * VHBA0 •	vHBA Type fc-initiator	× 0				
	HyperFlex Clusters Virtualization Integrated Systems			Pin Group Name 🗸 o						
O,	Analyze Explorer New	~		WWPN						
.0	Configure	^		Pool Static						
	Templates Policies			Selected Pool UCSX-A-WWPN X @						
	Pools			Placement Simple Advanced						
				When Simple Placement is selected, the Slot ID and vHBAs are deployed on the first VIC. The Slot ID det MLOM, and thereafter it keeps incrementing by 1, st	PCI Link are automatically determined by the system ermines the first VIC. Slot ID numbering begins with arting from 1.	n.				

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VHBA設定
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• 繼續選擇VHBA的策略,然後在FC區域中按一下Select Policy(s)、Create a new或Select Existing FC Zone policy(從清單中選擇FC區域策略)

≡	"cisco" Intersight	20	nfrastructure Service 🗸		Q Search	\odot \bigcirc	¢1 15	Q @162 🛆 60	ଡ ନ
.¢.	Overview		Policies > SAN Connectivity > DAS-SAN-Conn Edit						
0	Operate	^		MLOM, and thereafter it keeps incrementing by 1, starting from	n 1.				
	Servers								
	Chassis			A vo					
	Fabric Interconnects								
	HyperFlex Clusters			PCI Order					
	Virtualization								
	Integrated Systems			Persistent LUN Bindings					
O,	Analyze	^		Persistent LUN Bindinas					
	Explorer	New							
.0	Configure	^		Fibre Channel Network * © Selected Policy MX_SAN_A × ©					
	Profiles								
	Templates			Fibre Channel QoS * 0 Selected Policy FC_QOS X @ /					
	Policies								
	Pools			Fibre Channel Adapter * O					
				Selected Policy FC-ADAPTER × @					
				FC Zone ©					
				Select Policy(s)					
									_
			Cancel						Update

選擇FC區域策略

第2.4步建立FC區域策略

≡	-ili-ili- cisco Intersight	1.20	Infrastructure Service 🗸		Q Search	\odot \bigcirc	¢] 🗊	Q 0162 (A 60)	0	۹
:¢:	Overview		Policies > SAN Connectivity > DAS-SAN-Co	onn > Edit						
0	Operate Servers Chassis Fabric Interconnects HyperFlex Clusters Virtualization Integrated Systems Analyze Explorer Configure Profiles Templates Policies Policies	A New	Ceneral Policy Details	General Add a name, description and tag for the policy. Organization * default Name * Fc-Zone-A Set Tags Description << 102	 					
			<	Cancel					Ne	ĸt

FC區域

• 選擇單個啟動器 — 單個目標或單個啟動器多個目標,然後點選新增目標

≡	cisco Intersight	× 1	nfrastructure Service 🗸		Q Search 🕑	DD 🕫	5 Q 🚥	<u> </u>	୭ ନ
*	Overview		Policies > SAN Connectivity > DAS-SAN-Con	n > Edit					
0	Operate Servers Serve		Ceneral Poicy Detailsi	Policy Details Ad policy details FC Target Zoning Type Single initiator Multiple Target Single initiator Multiple Target Name WWPN	2 items four VSANID Switc	50 v p 10	r page († 1 1	of 1 > p	0
			<	Cancel				Back	Create

FC區域目標

• 使用對應WWPN、Fabric ID和VSAN配置目標。

≡	diado Intersight	20	nfrastructure Service 🗸			Q Search	ଡ 💷 🕫 ଓ 🚥 🚥 ଡ 🛛 ୧
*	Overview		Policies > SAN Connectivity > DAS-SAN-C	onn > Edit			
0	Operate Operate Servers Servers Fabric Interconnects HyperFlex Clusters Uritualization Integrated Systems Configure Configure Frofiles Fools		 Ceneral Policy Details 	Policy Details Ad policy details PC Target Zoning Type 0 Single Initiator Single Target Add Target CTO Primary CTO Secondary CTO Secondary Selected 1 of 2	Single Initiator Multiple Target Nore Edit Target Name * CTD Primary WXPN * Sociol ce 90 cd 93 ff 05 Switch ID = A = ISAN ID * 10 YSAN ID * 10 I - 4003	2 fter V\$4N ID 100 100	ns found 50 ~ per page 21 1 of 1 2 Switch ID A A 2 1 of 1 2 1
			<	Cancel			Back Create

FC區域目標配置

步驟 3.從SAN啟動(可選)

如果伺服器從SAN引導將目標新增到引導策略

步驟3.1配置引導選項

新增San Boot和虛擬媒體選項

=	🚓 Intersight 🛛 🥻 Intersight	nfrastructure Service 🗸		Q Search		ଡ ସ୍ଟ 📧	Q 0101 A01	୭ ନ
*	Overview	Edit UCS Server Profile (IMM-DAS)	y (DAS-Boot)					
0	Operate ^ Servers Chassis	General Policy Details	Policy Details Add policy details		× 10 50-04		Induine)	and the second
	Fabric Interconnects HyperFlex Clusters Virtualization Integrated Systems		Configured Boot Mode © Unified Extensible Firmware Interface (UEFI) C Legacy: Enable Secure Boot ©			nns. 1963 an 19 (a	unuunni) <u>0-3 361</u>	
O,	Analyze ^ Explorer New		Add Boot Device v					
Î	Configure ^ Profiles		Local CDD Local Disk					
	Policies Pools		PCH Storage PXE Boot SAN Boot					
			SD Card UEF Shell US8 Virtual Media					
		<	Cancel				lack Save Sa	ve & Deploy

步驟3.2配置SAN引導選項

輸入目標的WWPN及其相應的VHBA名稱。

≡	cisco Intersight	🖋 Infrastructure Service 🗸		Q Search	Ø \$1	5 🗘 🛛 163 🗛 62	0	A
:¢:	Overview	Edit UCS Server Profile (IMM-DAS) Edit Boot Order Polic	ey (DAS-Boot)					
0	Operate A Servers Chassis Fabric Interconnects HyperFlex Clusters	 General Policy Details 	Unified Extensible Firmware Interface (UEFI) Lega Enable Secure Boot Add Boot Device + Virtual Media (KVM)	icy		Enabled 🛛	1 ^	~
©,	Virtualization Integrated Systems Analyze Explorer New		SAN Boot (VHBA0-Primary) Device Name * VHBA0-Primary	UN © 0		C Enabled 🛛	0 - 2	• 55
ه. ا	Configure A		Interface Name * VHBAD	Targe S56:c9:	it WWPN * :ce:90:cd:93:ff:05			0
	Policies Pools		Bootloader Name Bootloader Path	 Boot o 	loader Description			0
		<	Cancel			Back Save Sa	ve & Dej	ploy

SAN引導選項

✤ 注意:介面名稱必須與之前給VHBA的名稱匹配。

步驟3.3根據需要新增目標並驗證順序

	tit Hervigt	🔉 intrastructure benetes 🗸		Q been	8 48 0 00 00 8
	Overview	Edit Boot Order Polic	y (DAS-Boot)		
*	Operate		Anti-periog-antaria Configured Boot Mode: 0 Configured Boot Mode: 0	7 ж.	Rature 923-brow Devicered <u>923-brow Pl-Monted</u>
0.	Analyze Explorer		 Virtual Media (1998) Setti Sun (1988) Primary) 		C tuber 0 A Y
Î	Analian Templates	i	 SAX-Boot (MARK) Secondary) SAX-Boot (MARK) Primary) 		Citational (C) A V
	Policies Polic		 batic bace (in-batic bacardary) 		C turne (🕆 🗠 🗸
			Cancel		Back Tore Street Deploy

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開機選項
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疑難排解

驗證FC埠是否配置正確

FI-A # connect nxos
FI-A (nxos) # show interface fc 1/1
FI-A (nxos) # show running-config interface fc 1/1

驗證交換矩陣互聯上的啟動器清單

FI-A (nxos) # show flogi database vsan <vsan id>

驗證特定伺服器配置檔案中的VHBA配置

FI-A (nxos) # show run interface | grep prev 1 next 10 <Server Profile's Name>

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)。