在UCS中心將本地服務配置檔案遷移到全域性的 配置指南

目錄

簡介 必要條件 需求 採用元件 遷移步驟 步驟1.記錄本地SP的池ID/策略/VLAN/VSAN/模板,如下所示。 步驟2.在UCS Central中重新建立所有ID/策略/VLAN/VSAN/模板和全域性SP。 步驟3.向UCS Central註冊UCSM。 步驟4.將本地配置檔案遷移到全域性配置檔案。 步驟5.驗證新的全域性配置檔案。 步驟6.將GLOBAL-SP關聯到指定的伺服器。 步驟7.分配新的全域性SP後,從SAN LUN引導伺服器 相關資訊

簡介

本文檔介紹如何將本地服務配置檔案遷移到全域性,或者如果域意外從中心註銷

必要條件

需求

思科建議您瞭解以下主題:

- 思科整合運算系統
- UCS Central
- 將本地配置檔案遷移到全域性配置檔案的過程

在下面的步驟中,假設最有挑戰性的使用案例:使用已分割槽到每個服務配置檔案中的目標啟動器 (WWPN)的遠端儲存引導LUN從SAN引導。ID在遷移過程中必須保持不變。

採用元件

本文中的資訊係根據以下軟體和硬體版本:

- 思科整合運算系統管理員(UCSM)
- 光纖互連(FI)
- 在ESXi VM上運行的UCS Central

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。如果您的網路正在作用,請確保您已瞭解任何指令可能造成的影響。

遷移步驟

1. 記錄本地SP的池ID/策略/VLAN/VSAN/模板。

2. 在UCS Central中重新建立所有ID/策略/VLAN/VSAN/模板和全域性SP。

3. 向UCS Central 註冊UCSM。

4. 將本地配置檔案遷移到全域性配置檔案。

5. 驗證新GLOBAL-SP中特定分割槽伺服器的ID是否正確。

6. 將GLOBAL-SP關聯到指定的伺服器。

7. 從SAN LUN引導伺服器。

步驟1.記錄本地SP的池ID/策略/VLAN/VSAN/模板,如下所示。

UCS-FI # scope org /						
UCS-FI /org # show Service Profile Nam	service-p e Server	orofile sta Assignment	tus Association	Power State	Op State	
SP01	1/3	Assigned	Associated	On	Ok	
UCS-FI /org # scope service-profile SP01						
<pre>UCS-FI /org/service-profile # show detail Service Profile: Service Profile Name: SP01 Boot Policy: LocalDisk BIOS Policy: ESX_BIOS Host f/w Policy: global-default Local Disk Policy: LocalDisk Maintenance Policy: UserAck Power Policy: PowerCap Stats Policy: TemThreshold Scrub Policy: global-default</pre>						
<pre>UCS-FI /org/service-profile # show identity Service Profile Name: SP01 UUID Suffix Pool: P_1 Dynamic UUID: c9fe0fd0-d051-11e3-00ff-00000000101 VNIC FC Node: WWNN Pool: P_N_1 Dynamic WWNN: 20:FF:00:25:B5:00:01:01</pre>						
UCS-FI /org/service-profile # show vnic identity vNIC: Name Type Fabric ID Dynamic MAC Addr						
ESX_Dat_A1 Ether ESX_Dat_A2 Ether	A A	00:25:B5: 00:25:B5:	0A:04:01 0A:04:02			

ESX_Dat_A3 Ether A 00:25:B5:0A:04:03 ESX_Dat_A4 Ether A 00:25:B5:0A:04:04 vHBA: Type Fabric ID Dynamic WWPN Name _____ ____ ESX_FCDat_A1 Fc А 20:FF:00:25:B5:0A:04:01 A 20:FF:00:25:B5:0A:04:02 ESX_FCDat_A2 Fc 20:FF:00:25:B5:0B:04:01 в ESX FCDat B1 Fc UCS-FI /org/service-profile # show vnic ESX_Vcon detail vNIC: Adapter Policy: global-VMWare QoS Policy: ESX_QoS Network Control Policy: CDP_EN Stats Policy: TemThreshold UCS-FI /org/service-profile # show vhba ESX_SB_A1 detail VHBA:

Adapter Policy: global-VMWare

Stats Policy: G-TemThreshold

步驟2.在UCS Central中重新建立所有ID/策略/VLAN/VSAN/模板和全域性SP。

- 建立全域性池、策略、VLAN、VSAN、vNIC模板、vHBA模板、LAN
- 連線策略、 SAN連線策略、全域性服務配置檔案模板和全域性服務配置檔案。
- 在UCS Manager中建立與本地定義的VSAN具有相同ID的全域性VSAN時,請確保全域性名稱 是唯一的,考慮VSAN名稱前面的「G — 」,同時確保新建立的全域性VSAN上的FCoE VLAN ID與對應的本地VSAN上配置的FCoE VLAN ID完全匹配。如果VSAN ID相同,而FCoE ID不同 ,則會在全域性服務配置檔案關聯時引發故障。
- 建立全域性SP將從其各自的全域性ID池中分配新的UUID、MAC、WWNN和WWPN。
- 將這些新策略應用於新的全域性模板。
- 從模板部署全域性服務配置檔案SP01_GP
- 將WWNN/WWPN/MAC設定為新的全域性配置檔案SP01_GP以保留相同的ID

附註:建立全域性SP將從其各自的全域性ID池中分配新的UUID、MAC、WWNN和WWPN。

有關如何通過CLI分配ID,請參閱配置指南

UCS-CENTRAL# connect resource-mgr UCS-CENTRAL(resource-mgr)# scope org / UCS-CENTRAL(resource-mgr) /org # scope service-profile SP01_GP UCS-CENTRAL(resource-mgr) /org/service-profile # set identity dynamic-wwnn 20:FF:00:25:B5:00:01:01 UCS-CENTRAL(resource-mgr) /org/service-profile # commit-buffer UCS-CENTRAL(resource-mgr) /org/service-profile # scope vnic ESX_Dat_A1 UCS-CENTRAL(resource-mgr) /org/service-profile/vnic # set identity dynamic-mac 00:25:B5:0A:04:01 UCS-CENTRAL(resource-mgr) /org/service-profile/vnic* # commit-buffer UCS-CENTRAL(resource-mgr) /org/service-profile # scope vhba ESX_FCDat_A1 UCS-CENTRAL((resource-mgr) /org/service-profile # scope vhba ESX_FCDat_A1 UCS-CENTRAL((resource-mgr) /org/service-profile/vhba # set identity dynamic-wwpn 20:FF:00:25:B5:0A:04:01 CODVQUCSCEN01(resource-mgr) /org/service-profile/vhba* # commit-buffer

利用簡單的UCS Central PowerTool指令碼**交換或**分配原始(正確分割槽)WWPN和其他ID。這些 ID屬於建立的全域性池,這些ID正確分配後,ID Universe將反映「使用中」狀態。

這只是一個UCS Central PowerTools指令碼示例,並非思科官方支援的產品。請您自擔風險,在生 產中使用之前先在實驗室中測試。請根據您的全域性SP設定、組織、ID、策略等編輯指令碼。

有關詳細資訊,請參閱指南

Change To (from Local SP) UUID: dc81c8de-3b00-11e5-0000-0000000025 Change To (from Local SP) MAC for vnic0: 00:25:B5:00:00:25 Change To (from Local SP) MAC for vnic1: 00:25:B5:00:00:26 Change To (from Local SP) WWNN ID: 20:00:00:25:B5:00:00:25 Change To (from Local SP) WWPN for A Fabric: 20:00:00:25:B5:AA:00:25 Change To (from Local SP) WWPN for B Fabric: 20:00:00:25:B5:BB:00:25 Start-UcsCentralTransaction \$mo = Get-UcsCentralOrg -Name root | Add-UcsCentralServiceProfile -Name "SP01_GP" -ModifyPresent -Uuid "0909ac8a-2411-11e4-0000-181401000099" \$mo_1 = \$mo | Add-UcsCentralVnic -ModifyPresent -Name "eth0" -Addr "00:25:B5:0A:04:01" \$mo_2 = \$mo | Add-UcsCentralVnic -ModifyPresent -Name "eth1" -Addr "00:25:B5:0A:04:02" \$mo_3 = \$mo | Add-UcsCentralVhba -ModifyPresent -Name "fc0" -Addr "20:FF:00:25:B5:0A:04:01" \$mo_4 = \$mo | Add-UcsCentralVhba -ModifyPresent -Name "fc1" -Addr "20:FF:00:25:B5:0A:04:02" \$mo_5 = \$mo | Add-UcsCentralVnicFcNode -ModifyPresent -Addr "20:01:00:25:B5:14:01:99" Complete-UcsCentralTransaction Start-UcsCentralTransaction \$mo = Get-UcsCentralOrg -Name root | Add-UcsCentralServiceProfile -Name "SP01_GP" -ModifyPresent -Uuid derived \$mo_1 = \$mo | Add-UcsCentralVnic -ModifyPresent -Name "eth0" -Addr derived \$mo_2 = \$mo | Add-UcsCentralVnic -ModifyPresent -Name "ethl" -Addr derived \$mo_3 = \$mo | Add-UcsCentralvhba -ModifyPresent -Name "fc0" -Addr derived \$mo_4 = \$mo | Add-UcsCentralvhba -ModifyPresent -Name "fcl" -Addr derived \$mo_5 = \$mo | Add-UcsCentralVnicFcNode -ModifyPresent -Addr pool-derived

對每個ID重複以手動分配

步驟3.向UCS Central註冊UCSM。



步驟4.將本地配置檔案遷移到全域性配置檔案。

- 使用本地SP正常關閉伺服器
- 取消本地SP關聯
- Delete Local-SP(將分配的ID恢復回具有未使用狀態的池)

有關如何在UCSM中管理服務配置檔案的詳細資訊,請參閱配置指南

步驟5.驗證新的全域性配置檔案。

UCS-FI /org # show service-profile status Central(resource-mgr) /org/service-profile # show identity

步驟6.將GLOBAL-SP關聯到指定的伺服器。

請參閱配置指南,瞭解如何從central關聯SP

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ahaha	UCS Domains Fault Summary	Preferences Log Out About Help				
cisco UCS Central		Switch to Next Generation User Interface				
A Properties						
Dom: Domotion						
SPUT_GP		v				
16	A Properties					
Ceseral Network Storage	Change Association	0				
Status						
Change Association	Identify the method to use to server assignment method used to assign servers to the Service Profile.					
Overall Status:	Server Assignment Method: Identify a slot location					
Association	Power state to apply on assignment: O down up					
Associate	cn.					
Associated Se	Server Location	/ Illegal WWINN				
► UCS Do	M UCS Domain: program of					
Assignment	PLOPUSQA					
Assigned	Chassis ID: 1					
Assigned Se	slot ID: B					
Server	Pi Instance ID: 0					
Server Power	Sti Restrict migration of server:					
Desired Power 1	CR					
Restrict Migr	at or	Chris				
	Estimate Impa	d Save Save & Ext Close				
Save Rest						
User. (admin) Sr@r@@2861+Dy/2R2jiWko/						

步驟7.分配新的全域性SP後,從SAN LUN引導伺服器

檢查伺服器是否可以通過KVM控制檯從SAN啟動

A PDC-F08-QA / root / CODPQEVPHTN01 (Chassis - 1 Server - 3) - KVIM Console(Launched By: a	dmin) 🕞 💼
File View Macros Tools Virtual Media Help	
Statt Server Shutdown Server Select	
In the control of the second s	
VMware ESXi 5.5.8 (VMKernel Release Build 4345813)	
Cisco Systems Inc UCS8-822-M3	
2 x Intel(R) Xeon(R) CPU E5-2483 8 # 1.88GHz	
48 GiB henory	
Download tools to manage this host from: http://CODPQEVPHIN01/	
http://10.102.33.57/ (STATIC)	
(F2) Custonize System/View Logs	CF12> Shut Down/Restart
	[10. 102. 32. 165] admin] 0.4 fps] 0.001 KB/s] NLM] 🙆
Connected to 19: 10.102.32.165	System Time: 2016-11-17T12:25

相關資訊

• UCSM配置指南

http://www.cisco.com/c/en/us/support/servers-unified-computing/ucs-centralsoftware/products-installation-and-configuration-guides-list.html

• 中心最佳做法

https://communities.cisco.com/servlet/JiveServlet/downloadBody/66619-102-3-120435/UCS%20Central%20Operations%20and%20Best%20Practice%20Guide.pdf

- 中央配置指南
 <u>http://www.cisco.com/c/en/us/support/servers-unified-computing/ucs-manager/products-installation-and-configuration-guides-list.html</u>
- PowerTools套件 https://communities.cisco.com/docs/DOC-37154