從UCS Central配置M2硬體Raid

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簡介

本文檔介紹如何在UCS中心管理軟體中配置統一計算系統(UCS)-M2-HWRAID。

必要條件

需求

思科建議您瞭解以下主題:

- UCS管理器
- UCS Central
- M2 Raid UCS-M2-HWRAID

採用元件

本文中的資訊係根據以下軟體和硬體版本:

- 乙太網和光纖通道終端主機模式的Cisco UCS 64108 108埠交換矩陣互聯
- 基礎架構b套件版本: 4.2(3)
- Cisco UCS B200 M6伺服器
- 伺服器firmware版本: 4.2.3(b)B
- 更多: <u>UCS硬體和軟體相容性</u>
 - ◎ 介面卡 > RAID > Cisco Boot Optimized M.2 HW Raid Controller(Cisco)

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

UCS-M2-HWRAID包含兩個m.2膠棒;一個位於運營商兩側。UCS-M2-HWRAID和UCS-MSTOR-M2看起來相似,但在此配置示例中,為硬體RAID。

設定

檢查當前狀態

1. 檢查必要的部件是否顯示在伺服器清單中。

在UCS Central中, 導航到Equipment > Servers > Server x。

選擇頂部的Inventory頁籤,即Motherboard。展開Mini Storage。 確保您的型號顯示為UCS-M2-HWRAID,如下圖所示。

Basic Motherboard	Controllers SAS Controller 1 OK	SATA Controller 1 UCS-M2-HWRAID Overall Status Optimal	
CIMC		Key Indicators	Status
CPUs	SATA Controller 1 OK	Operability	Optimal
	(mmm)mmm)	Presence	Equipped
GPUs		Controller Status	Optimal
Security		Pinned Cache Status	Disabled
		Security	None
Memory		Configuration	Value
Adapters		Firmware Version	2.3.17.1014
Controllers		Boot-loader Version	1.1.17.1002
		Hardware	Specs.
Storage		ID	1
LUNs		PCI Address	04:00.0
		Model	UCS-M2-HWRAID
		RAID Support	RAID1
		OOB Interface Supported	Yes
		Rebuild Rate	0
		No. Of Local Disks	2 (2 slots)
		S/No	FCH24177BB6

2.檢查是否顯示兩個m.2磁碟,並且它們處於可操作狀態。此伺服器型號將m.2磁碟放在插槽253和 254中。

Basic	Storage
Motherboard	SAS Controller 1 Disk 1 OK
CIMC	SAS Controller 1 Disk 2 OK
CPUs	SATA Controller 1 Disk 253 CE
GPUs	SATA Controller 1 Disk 254
Security	
Memory	
Adapters	
Controllers	
Storage	
LUNs	

3.檢查是否存在任何孤立LUN:

導航到LUNs選項卡。 如果看到孤立LUN,請在開始配置之前跳到底部的故障排除部分。

Basic	LUNS	Virtual Drive RAID1_253254	1/0
Motherboard	Virtual Drive RAID1_253254 1/0 OK	Operability OK	Presence Equipped
CIMC		Keu Indiantera	Status
CPUs		Associated Service Profile	Status
GPUs		Config State	Orphaned
Security		Bootable	True
		Access Policy	Read Write
Memory		Security	
Adapters		Hardware	Specs.
		ID	0
Controllers		Size (MB)	228872
Storage		Drive State	Optimal
		Block Size	512
LUNs		No. Of Blocks	468731008

在UCS Central上建立磁碟組策略

1.在UCS Central上,導航到What do you want to do? 框,然後鍵入Create Disk Group Configuration Policy。

cisco	UCS Central	What are you looking for?	Q What do you want to do?
	< 🔣 Dashboard	₩ root ×	Create Disk Group Configuration Policy
			Create Disk Zoning Policy
æ	★ Welcome to	UCS Central!	
	What's N	lew	
ø	Scheduling scheduled about the r) domain infrastructure firmware updates has updates that were scheduled on UCS Central new steps to schedule a domain infrastructure	changed in UCS Central. They are no longer based on Domain Groups. Any previously rersion 1.4 or older have been removed. Please read the documentation to learn more firmware update.
6	Globalizati	on of Local Service Profiles	Enhanced Search
<	Globalizati VLAN Grou Domain Co	on of Local VLANs/VSANs ips onfiguration Settings	Clone Policies UCSM DirectView View the Release Notes 🖸
N			
Ē	Explore Introductio	n to the User Interface	Support Online Help 🗹
•	UCS Comn	nunities 🖌	Troubleshooting 🗹 Documentation 🚰
0			

2. Select the organization, name the policy, add description, and select RAID Level 1 Mirrored.

li.ili. cisco	UCS Centra	What are you looking for?	Q	What do you want to do?	•
99	Disk G	roup Configuration Po	olicy Create		* ?
	Basic	Organization			
æ	Disk Group	root 👻			
	Virtual Drive	Name * Policy-M2			
ø		Description Disk M2 policy			
۵		RAID Level]		
<			_		
N					
•					
¢					
				Ca	ncel Create Evaluate

3.選擇磁碟組。在Disk Slots IDs下,鍵入253和254作為此案例的磁碟ID,然後選擇普通的Disk Roles。

cisco	UCS Central	What are you looking for?	Q	What do you wa	nt to do?		•
	Disk Gro	oup Configuration Poli	cy Create				* ?
	Basic	Configuration Type				Auto	Manual
#	Disk Group		Span ID 0				
	Virtual Drive	Disk Slot ID	Disk Role	Global Hot Spare	Normal		
Ø		254		olobarnotopare			
× 							
Ë							
<i>•</i>							
¢							
					C	ancel Create	Evaluate

4. 選擇Virtual Drive,並確認所有選項均在「平台預設值」上,並且「安全性」為「已禁用」。然後 ,按一下Create按鈕。

uluulu cisco	UCS Central	What are you looking for?	Q	What do you want to do?	Ŧ		
	Disk Gro	oup Configuration F	Policy Create			*	?
	Basic	Strip Size (KB)	_				
æ	Disk Group	Access Policy	•				
	Virtual Drive	Platform Default	•				
Ø		Read Policy Platform Default	•				
6		Write Cache Policy					
<		IO Policy					
N		Platform Default	•				
Ē		Platform Default	•				
ø		Security					
φ							
					Cancel Create	Evalua	ite

建立儲存配置檔案

1.在UCS Central上,導航到搜尋框What are you seek?(您要查詢什麼?)旁,然後鍵入Create Storage Profile。

ı. cısco	UCS Central 📃 What are yo	ou looking for? Q	create stora 🔹
	III Dashboard Policies *	M2-Disk Policy-M2 *	Create Storage Connection Policy
	Policy-M2 Disk Grou ^{root} Disk M2 Policy Policy Usage ▲	up Configuration Policy	Create Storage Profile
• •	0 Associate 0 Not Assoc 0 Config Err	III ed ciated rors	
<	Settings RAID Level	Value RAID 1 Mirrored	
N	Disk Group	Value	
Ē	Configuration Type	Manual	
•	Disk	Span ID U	ser Role
	253	0 N	ormal

2.命名儲存配置檔案並新增說明。

li.ili. cisco	UCS Central	What are you looking for?	Q	What do you want to do?	•		
	Storage	Profile Create				* (?
	Basic	Organization					
æ	Local LUNs	root 👻					
	Controller Defs	LUN-M2					
Ø	Security Policy	Description LUN for M2 raid					
6							
4							
~							
0							
.							
					Cancel	Create	

3.選擇本地LUN,然後按一下Add按鈕並為此LUN指定名稱。

cisco	UCS Central	What are you looking for?	Q What do you want to do?	•
	Storage I	Profile Create		* (
	Basic	+ a	Local LUN	Basic Claim Mode
#	Local LUNs	Local LUNs	Basic Disk Group	
	Controller Defs	MZ_LUN	Size (GB)	
Ø	Security Policy		Fractional Size (MB)	
			Auto Deploy	
< 			Enabled Disabled	
			Enabled Disabled	

4.按一下磁碟組。 點選下拉箭頭並選擇以前建立的磁碟組策略。

uludu cisco	UCS Central	What are you looking for?	Q What do you want to do?	•
	Storage I	Profile Create		* ?
	Basic Local LUNs	+ Cocal LUNs	LOCAL LUN Basic Disk Group	Basic Claim Mode
	Controller Defs	MZ_LUN	Disk Group Configuration Policy	• ا
6	Security Policy			Not-Assigned storage_ Test
<				M2-Disk Policy-M2
<i>**</i>				
•				
¢				
				Cancel Create

5. M.2 Raid控制器不需要控制器定義和安全策略。選擇Create完成配置。

cisco	UCS Central	What are you looking for?	Q	What do you want to do?	•
ŦŦ	Storage	Profile Create			* ?
	Basic	+ a Local LUNs	Local LUN Basic Disk Group		Basic Claim Mode
	Controller Defs	M2_LUN	Disk Group Confi	iguration Policy	•
e e	Security Policy		M2-DİSK root Policy Usage 🔻		
×			Settings RAID Level	Value RAID 1 Mirrored	
N			Disk Group Configuration Type	Value Manual	
			Disk	Span ID	User Role
			253 254	0	Normal
<i>Q</i>			Virtual Drive	Value	
			· · ·		Cancel Create

關聯到全域性服務配置檔案

1.將最近建立的儲存配置檔案應用到新的或現有的服務配置檔案,並儲存配置。

ServiceprofileM2 Service Profile									1	
Basic	Storage	ServiceprofileM2 Edit						0		
Identifiers	Local Disk Configuration Policy Storage Profile	Basic	Storage	Storage Pr	ofile					
Connectivity	Storage Items	Identifiers	Local Disk Configuration Policy	M2_Profile						
FC Zones	No results found	LAN	Storage Profile M2_Profile	Policy Usage 🔻 Settings	Value					
Server	<0 (P)	SAN		Server type where you plan to apply	Other					
Storage		Servers		the Storage Profile						
Policies		Storage		Local LUN Name	Size (GB)	Fractional Size (MB)	Order	Disk Group Configuration Policy		
		Policies		m2_raid1	1	0	Not Applicable	M2-Disk		
				Controller Definition Name	Protect Configuration	RAID Level				
				Security Policy	Value					
								Cancel	Save	

2.如果服務配置檔案尚未關聯,請繼續將服務配置檔案分配給現有伺服器。

Basic	Service Profile Template			
Identifiers	Ungrouped			
Connectivity	Assigned Server - <not-assigned> Ungrouped</not-assigned>			
FC Zones	O-well Status	Carlo Error	Pro	dan Channa
Server	Unassociated	0	NC)
Storage	Fault Summary			A Faults
Policies	8		\odot	
	Critical	Major Minor	Warning	
	0	0 0	1	



驗證

選中ServerTab,然後選擇LUN,並確保虛擬驅動器存在並且已應用配置狀態。

	_raid1 1/1000
1/1000	Presence Equipped
	Status
	m2globaltest 🗹
	Applied
	True
	Read Write
	Specs.
	1000
	228872
	Optimal
	512
	468731008
	Mirror

疑難排解

本節提供的資訊可用於對組態進行疑難排解。

UCS-TS-MXC-P25-64108 1/2 Server

找到孤立LUN時,請選擇LUN並刪除。這將刪除陣列上存在的所有資料,如下圖所示。

Basic	LUNs	Virtual Drive RAID1_253254	1/0	
Motherboard	Virtual Drive RAID1_253254 1/0 CK	Operability OK	Presence Equipped	Delete Orphaned LUN
CIMC				Rename LUN
CPUs		Key Indicators Associated Service Profile	Status	Set Transport Ready Hide Virtual Drive
GPUs		Config State	Orphaned	Secure Virtual Drive
Security		Bootable Access Policy	True Read Write	
Memory		Security		
Adapters		Hardware	Specs.	
		1D	0	
Controllers		Size (MB)	226872	
Storage		Drive State	Optimal	
		Block Size	512	
LUNs		No. Of Blocks	468731008	

相關資訊

- Cisco UCS中心伺服器管理指南2.0版
- <u>Cisco UCS中央儲存管理指南2.0版</u>
- 在UCS刀片上配置UCS-M2-HWRAID
- <u>Cisco UCS B200 M6刀鋒伺服器</u>
- <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)。