从UCS中心配置M2硬件Raid

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简介

本文档介绍如何在UCS中心管理软件中配置统一计算系统(UCS)-M2-HWRAID。

先决条件

要求

Cisco 建议您了解以下主题:

- ・ UCS 管理器
- UCS中心
- M2 Raid UCS-M2-HWRAID

使用的组件

本文档中的信息基于以下软件和硬件版本:

- 以太网和64108纤通道终端主机模式下的Cisco UCS 108端口交换矩阵互联
- 基础设施b单版本: 4.2(3)
- Cisco UCS B200 M6服务器
- 服务器f固件版本: 4.2.3(b)B
- 更多: <u>UCS硬件和软件兼容性</u>
 - 。适配器 > RAID > Cisco Boot Optimized M.2 HW Raid Controller(Cisco)

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

UCS-M2-HWRAID包含两个m.2胶棒;一个位于运营商两侧。UCS-M2-HWRAID和UCS-MSTOR-M2看起来相似,但在本配置示例中,为硬件RAID。

配置

检查当前状态

1. 检查必要的部件是否显示在服务器清单中。

在UCS中心,导航到设备>服务器>服务器x。

选择顶部的Inventory选项卡,即Motherboard。展开Mini Storage。 确保您的型号显示为UCS-M2-HWRAID,如下图所示。

Basic Motherboard	Controllers SAS Controller 1 OK	SATA Controller 1 UCS-M2-HWRAID Overall Status Optimal	
CIMC	N/A	Key Indicators	Status
CPUs	SATA Controller 1 OK	Operability	Optimal
	(personal personal)	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		D	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.检查是否出现了两个m.2磁盘,并且它们处于可操作状态。此服务器型号将m.2磁盘放在插槽 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 OK
GPUs	SATA Controller 1 Disk 254
Security	
Memory	
Adapters	
Controllers	
Storage	
LUNs	

3.检查任何孤立LUN:

导航到LUN选项卡。 如果看到孤立LUN,请在开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		Kau Indiantara	Status
CPUs		Associated Service Profile	Status
GPUs		Config State	Orphaned
Security		Bootable Access Policy	True Read Write
Memory		Security	
Adapters		Hardware	Specs.
Controllers		ID Size (MB)	0 228872
Storage		Drive State	Optimal
		Block Size	512
LUNs		No. Of Blocks	468731008

在UCS中心上创建磁盘组策略

1.在UCS中心上,导航到What do you want to do? 框,然后键入Create Disk Group Configuration Policy。

.ılı.ılı. cısco	UCS Central	What are you looking for?	Q What do you want to do?
	< 📰 Dashboard	a≣ root ×	Create Disk Group Configuration Policy
			Create Disk Zoning Policy
æ	★ Welcome to	UCS Central!	
-	What's N	ew	
ø	Scheduling scheduled u about the ne	domain infrastructure firmware updates has ch updates that were scheduled on UCS Central ve ew steps to schedule a domain infrastructure f	nanged in UCS Central. They are no longer based on Domain Groups. Any previously arsion 1.4 or older have been removed. Please read the documentation to learn more irmware update.
	Globalizatio	n of Local Service Profiles	Enhanced Search
<	VLAN Group		UCSM DirectView
N	Domain Con	ıfiguration Settings	View the Release Notes 🖒
ω	Explore		Support
	Introduction	to the User Interface	Online Help 🖓
•	UUS Commi	unities 🖸	
¢			

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

.ılı.ılı. cısco	UCS Centra	What are you looking for?	Q	What do you want to do?	-
ш	Disk G	roup Configuration Po	olicy Create		* ?
	Basic	Organization			
#	Disk Group	root 👻			
	Virtual Drive	Policy-M2			
e		Disk M2 policy			
6		RAID Level 🗸 🗸			
<					
N					
i					
•					
¢					
				Cancel	Preate Evaluate

3.选择磁盘组。在Disk Slots IDs下,键入253和254作为此案例的Disk ID,然后选择正常的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	
ж —	Disk Group		Span ID 0					
	Virtual Drive		Disk Role Dedicated Hot Spare	Global Hot Spare	Normal			
6		254						
<								
м								
Ē								
•								
¢								
					Са	ncel Create	Evaluate	

4. 选择Virtual Drive,并确认所有选项都位于Platform Default上,并且Security为Disabled。然后 ,单击Create按钮。

.ili.ili. cisco	UCS Central	What are you looking for?	Q	What do you want to do?	•	
	Disk Gr	oup Configuration F	Policy Create			* ?
■ 	Basic Disk Group Virtual Drive	Strip Size (KB) Platform Default Access Policy Platform Default	•			
Ø		Read Policy Platform Default	•			
€ ≺		Write Cache Policy Platform Default	•			
м		IO Policy Platform Default	•			
		Drive Cache Policy Platform Default	•			
 		Enabled Disabled				
					Cancel	Evaluate

创建存储配置文件

1.在UCS中心上,导航到搜索框What are you seek?(您寻找什么?)旁边并键入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.命名存储配置文件并添加说明。

.ili.ili. cisco	UCS Central	What are you looking for?	Q	What do you want to do?	•	
	Storage	Profile Create				?
а ж	Basic	Organization root				
	Local LUNs Controller Defs	Name * LUN-M2 Description				
6	Security Policy	LUN for M2 raid				
< *						
						
					Cancel Cr	eate

3.选择本地LUN,然后单击添加按钮,为此LUN指定名称。

uluili. cisco	UCS Central	What are you looking for?	Q What do you want to do?	*
	Storage I	Profile Create		* 3
	Basic	+ =	Local LUN	Basic Claim Mode
æ	Local LUNs		Basic Disk Group	
	Controller Defs	MZ_LUN	Size (GB)	
e	Security Policy		Fractional Size (MB)	
			Auto Deploy	
<			Enabled Disabled	
			Enabled Disabled	

4.单击磁盘组。 点击下拉箭头并选择以前创建的磁盘组策略。

.ili.ili. cisco	UCS Central	What are you looking for?	Q What do you want to do?	•
	Storage I	Profile Create		* ?
∎ 	Basic	+ Cocal LUNs	Local LUN	Basic Claim Mode
	Local LUNs Controller Defs	M2_LUN	Disk Group Configuration Policy	· · ·
e	Security Policy		<not-assigned></not-assigned>	Not-Assigned storage_
<				Test M2-Disk Policy-M2
~				
•				
¢				
				Cancel

5. M.2 Raid控制器不需要控制器定义和安全策略。选择Create完成配置。

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

关联到全局服务配置文件

1.将最近创建的存储配置文件应用于新的或现有的服务配置文件,并保存配置。

ServiceprofileM2 Service Profile								1		
Basic	Storage	Service	ServiceprofileM2 Edit					?		
Identifiers	Local Disk Configuration Policy Storage Profile	Basic	Storage	Storage Pr	ofile					
Connectivity	Steven Items	Identifiers	Local Disk Configuration Policy	M2_Profile						
FC Zones	No results found	LAN	Storage Profile M2_Profile	Policy Usage ▼ Settings	Value					
Server	<4 b>	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.如果服务配置文件尚未关联,请继续将服务配置文件分配给现有服务器。

	Service Profile Template			
Basic	<not-bound></not-bound>			
Identifiers	Ungrouped			
	Assigned Server -			
Connectivity	<not-assigned></not-assigned>			
FC Zones	onyrouped			
	Overall Status	Config Errors	Pending Changes	
Server	Unassociated	0	NO	
ltorage	Fault Summary			A Faults
olicies	\otimes		\mathbf{O}	
	Critical	laior Minor	Warning	
	0	0 0	1	

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



验证

选中ServerTab,然后选择LUN,并确保虚拟驱动器存在并已应用配置状态。

10.31.123.12	8		
Basic	LUNS	Virtual Drive m2_raid1 1/1000	Presence
Motherboard	Virtual Drive m2_raid1 1/1000 OK	OK	Equipped
CIMC		Key Indicators	Status
CPUs		Associated Service Profile	m2globaltest 🗷
		Config State	Applied
GPUs		Bootable	True
Security		Access Policy	Read Write
		Security	
Memory		Hardware	Specs.
Adapters		ID	1000
		Size (MB)	228872
Controllers		Drive State	Optimal
Storage		Block Size	512
		No. Of Blocks	468731008
LUNS		LUN Type	Mirror

故障排除

本部分提供了可用于对配置进行故障排除的信息。

找到孤立LUN后,选择LUN并删除。这将删除阵列上存在的所有数据,如下图所示。

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	

相关信息

- Cisco UCS中心服务器管理指南,版本2.0
- <u>Cisco UCS中心存储管理指南,版本2.0</u>
- 在UCS刀片上配置UCS-M2-HWRAID
- <u>Cisco UCS B200 M6刀片服务器</u>
- <u>思科技术支持和下载</u>

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