有關如何使用KVM從EFI外殼運行LSI StorCli的技 術說明

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簡介

本文檔介紹使用KVM(無需快閃記憶體驅動器)從EFI Shell運行LSI StorCli的過程。

必要條件

需求

思科建議您瞭解以下主題:

- 在Cisco UCS伺服器上使用EFI shell
- 使用StorCli工具及其命令語法,請參閱下面的命令參考指南。 https://docs.broadcom.com/docs/12352476
- 應啟用EFI shell以引導至。

採用元件

本文中的資訊係根據以下軟體和硬體版本:

- UCS C系列伺服器,帶有基於LSI PCIe的RAID控制器。
- StorCli EFI驅動程式/工具

下載Storcli工具:<u>https://www.broadcom.com/support/download-search</u>

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

步驟1.從管理軟體和工具(<u>連結</u>)下載Storcli,提取資料夾並導航EFI資料夾。獲取副檔名為**.EFI**的 Storcli檔案,如下圖所示:

Latest MegaRAID StorCLI MR 6.11	All OS	03/23/2016 🔤 📩	Create
Version: 1.19.04 File Size: 40631 KB	Language: Read Me English		
1.19.04_StorCLI.txt	EFI	▶ license.txt	license.txt
storcli_all_os	FreeBSD		storcli.efi
	🚞 Linux	Þ	
	Linux-OEL-Sparc	•	
	📃 Linux-ppc	•	
	Solaris	Þ	
	📃 Solaris Sparc	•	
	📃 Ubuntu	•	
	Vmware	•	
	Vmware-MN	•	
	Vmware-NDS	•	
	Windows	•	

步驟2.按任意名稱建立新資料夾,在此處使用名稱EFI建立該資料夾,並在該資料夾中複製 storcli.efi。

啟動伺服器的KVM,如圖所示,轉到Virtual Media create image選項。

Lreate Image from	Folder	
Create a New Ima	ge File From a Source Folder	
Source Folder:	C:\Users\Rahul\Desktop\EFI	Browse
New Image File:	C:\Users\Rahul\Desktop\EFI.img	Browse
	Image creation successfully completed	
		Finish

瀏覽以在「從資料夾建立圖**像」彈出視窗中提**供源資料夾。此處選擇的源資料夾是先前建立的EFI資 料夾,它包含**storcli.efi**檔案。

此外,瀏覽IMG檔案的目標路徑。如圖所示,按一下Finish建立IMG檔案。

🛕 10.76.78.50 - KVM Console				
ile View Macros Tools Power	Virtual Media He	łp		
ntel(R) Boot Are	ent GE v1.	.5.53		
nuriaht (C) 199	7-2014	Intel Cornoration		
spgright (o) iss				
XE-E61: Media te	st failur	re, check cable		
XE-MOF: Eviting	Intel Boo	at Agent		
	Create Image from	Folder		×
ntel(R) Boot Am	Create a New Ima	age File From a Source Folder		
onuright (C) 19	Source Folder	Cill Jaara Dahul Daalitaa (CC)		п
opgi igno (or is	Source rolder.	C.IOSelsikanunDesklopiEPI	Browse	
LIENT MAC ADDR:	New Image File:	C:\Users\Rahul\Desktop\EFI.img	Browse	F F717451795C0
XE-E51: No DHCP		Image creation successfully completed		
			Finish	
XE-MOF: Exiting			1111511	
eboot and Select	nroner H	Root device		
r Insert Boot Me	dia in se	elected Boot device and nres	ss a keu	
	and in Se	fielded boot actice and pre-	ss a neg	

步驟3.瀏覽檔案並將其作為可移動介質裝載,不要選中Read Only框。其原因是您必須將日誌檔案和 IMG檔案一起寫入。

i.

File	View	Macros	Tools	Power	Virtual Media	Help
					Create Ima	ige
					✓ Activate Vi	rtual Devices
					Map CD/DV	/D
					Map Remo	vable Disk
					Map Floppy	/

Med	🔺 Vi	rtual Media	a - Map	Removab	le Disk			×
	Dr	ive/Image	File:	E: Rea	d Only		-	Browse
ilNo of	Manu	facture	2870	9/2014		I	Map Device	Cancel
File	View	Macros	Tools	Power	Virtual Med	ia	Help	
					Create	Ima	ge	
					✓ Activate	e Vi	rtual Devices	
					Map CD EFI.img Map Flo	/DV Ma	'D pped to Remov /	able Disk

步驟4.在內建EFI Shell中啟動伺服器

Please select boot device: (SATA) Embedded RAID Controller Cisco CIMC-Mapped vHDD1.22 Cisco vKVM-Mapped vDVD1.22 Cisco CIMC-Mapped vHDD1.22 Cisco vKVM-Mapped vHDD1.22 Cisco vKVM-Mapped vHDD1.22 Cisco vKVM-Mapped vFDD1.22 IBA GE Slot 1700 v1553 IBA GE Slot 1701 v1553 UEFI: Built-in EFI Shell Enter Setup		
<pre>(SATA) Embedded RAID Controller Cisco CIMC-Mapped vHDD1.22 Cisco vKVM-Mapped vDVD1.22 Cisco CIMC-Mapped vHDD1.22 Cisco vKVM-Mapped vHDD1.22 Cisco vKVM-Mapped vFDD1.22 IBA GE Slot 1700 v1553 IBA GE Slot 1701 v1553 UEFI: Built-in EFI Shell Enter Setup</pre>	Please select boot device:	
Cisco CIMC-Mapped vHDD1.22 Cisco vKVM-Mapped vDVD1.22 Cisco CIMC-Mapped vDVD1.22 Cisco vKVM-Mapped vHDD1.22 Cisco vKVM-Mapped vFDD1.22 IBA GE Slot 1700 v1553 IBA GE Slot 1701 v1553 UEFI: Built-in EFI Shell Enter Setup	(SATA) Embedded RAID Controller	
Cisco vKVM-Mapped vDVD1.22 Cisco CIMC-Mapped vDVD1.22 Cisco vKVM-Mapped vHDD1.22 Cisco vKVM-Mapped vFDD1.22 IBA GE Slot 1700 v1553 IBA GE Slot 1701 v1553 UEFI: Built-in EFI Shell Enter Setup	Cisco CIMC-Mapped vHDD1.22	
Cisco CIMC-Mapped vDVD1.22 Cisco vKVM-Mapped vHDD1.22 Cisco vKVM-Mapped vFDD1.22 IBA GE Slot 1700 v1553 IBA GE Slot 1701 v1553 UEFI: Built-in EFI Shell Enter Setup	Cisco vKVM-Mapped vDVD1.22	
Cisco vKVM-Mapped vHDD1.22 Cisco vKVM-Mapped vFDD1.22 IBA GE Slot 1700 v1553 IBA GE Slot 1701 v1553 UEFI: Built-in EFI Shell Enter Setup	Cisco CIMC-Mapped vDVD1.22	
Cisco vKVM-Mapped vFDD1.22 IBA GE Slot 1700 v1553 IBA GE Slot 1701 v1553 UEFI: Built-in EFI Shell Enter Setup 1 and 4 to move selection ENTER to select boot device	Cisco vKVM-Mapped vHDD1.22	
IBA GE Slot 1700 v1553 IBA GE Slot 1701 v1553 UEFI: Built-in EFI Shell Enter Setup ↑ and ↓ to move selection ENTER to select boot device	Cisco vKVM-Mapped vFDD1.22	
IBA GE Slot 1701 v1553 UEFI: Built-in EFI Shell Enter Setup	IBA GE Slot 1700 v1553	
UEFI: Built-in EFI Shell Enter Setup 1 and 1 to move selection ENTER to select boot device	IBA GE Slot 1701 v1553	
Enter Setup ↑ and ↓ to move selection ENTER to select host device	UEFI: Built-in EFI Shell	
↑ and ↓ to move selection	Enter Setup	
ENTER to celect boot device	↑ and ↓ to move selection	
	ENTER to select boot device	
ESC to boot using defaults	ESC to boot using defaults	

步驟5.引導到Shell後,使用map -r命令刷新檔案系統對映(如果在伺服器引導之前連線了可流動裝置,則可能不需要)。

shell> map -r

輸入一個可用的fsx檔案系統,如fs0或fs1,然後按Enter。提示會變更為fsx>,其中x是所選檔案系 統的編號。

Shell	l> fs0:
fs0:\	<pre>\> dir</pre>
	blk3: Alias(s):
	PciRoot(0x0)/Pci(0x1D,0x0)/USB(0x0,0x0)/USB(0x6,0x0)/Scsi(0x0,0x3)
	blk4: Alias(s):
	PciRoot(0x0)/Pci(0x1D,0x0)/USB(0x0,0x0)/USB(0x6,0x0)/Scsi(0x0,0x4)
	Press ESC in O seconds to skip startup.nsh or any other key to continue.
	Shell> fs0:
	fs0:\> dir
	Directory of: fs0:\
	02/01/2016 03:37 <dir> 4,096 EFI</dir>
	0 File(s) 0 bytes
	1 Dip(c)

步驟6.更改目錄以更改為EFI資料夾。

```
fs0:\> cd EFI
fs0:\EFI> ls
```

• (== = = = =			
fs0:\> cd EFI			
fs0:\EFI\> ls			
Directory of: fs0:\EFI\			
05/06/2016 11:45 <dir></dir>	0		
05/06/2016 11:45 <dir></dir>	4,096		
02/01/2016 03:37	2,545,408	storcli.efi	
1 File(s) 2	,545,408 bytes		
2 Dir(s)			
fs0:\EFI\> _			

現在可以運行Storcli命令。

需要記住的要點:

- PgUp和PgDn鍵可在EFI外殼中上下滾動。
- page=n(n表示要在螢幕上顯示為輸出的行數,例如page=10)
- 使用常規append命令在檔案中寫入輸出(預設情況下,如果未定義完整路徑,檔案將寫入裝載 的fs的當前工作目錄中)。
- 直接輸出到檔案use>。例如 storcli.efi /c0 show term log > term log.txt
- 將輸出追加到現有檔案,請使用>>。例如, storcli.efi /c0 show term log >> term log.txt

```
fs0:\EFI\>
fs0:\EFI\>
fs0:\EFI\>
fs0:\EFI\> storcli.efi /c0/v0 show all
Controller = 0
Status = Success
Description = No VDs have been configured
fs0:\EFI\> storcli.efi /c0/eall/sall show all page=10
Controller = 0
Status = Success
Description = Show Drive Information Succeeded.
Drive /c0/e8/s1 :
_____
EID:Slt DID State DG Size Intf Med SED PI SeSz Model
                                                                    Sp
Press any key to continue
```

這些影象顯示了將輸出儲存到與storcli位於同一資料夾中的檔案的示例;故障排除後,您可以提取 /裝載EFI.IMG檔案以收集日誌。

```
fs0:\EFI\> ls
Directory of: fs0:\EFI\
05/06/2016 11:45 <DIR>
                                   Û
05/06/2016 11:45 <DIR>
                               4,096
02/01/2016 03:37
                           2,545,408 storcli.efi
         1 File(s) 2,545,408 bytes
         2 \text{ Dir}(s)
fs0:\EFI\> storcli.efi /c0 show termlog > Termlog.txt
fs0:\EFI\> storcli.efi /c0 show termlog >> Termlog.txt
fs0:\EFI\> ls
Directory of: fs0:\EFI\
05/06/2016 11:45 <DIR>
                                     0
05/06/2016 11:45 <DIR>
                                 4,096
02/01/2016 03:37
                            2,545,408 storcli.efi
                              853,710 Termlog.txt
05/10/2016 14:25
          2 File(s) 3,399,118 bytes
          2 Dir(s)
fs0:\EFI\> _
```

瀏覽IMG檔案以獲取日誌。

收集日誌時運行的重要命令很少:

- storcli /c0 show all > adpinfo.txt
- storcli /c0 show events file > Events.txt
- storcli /c0 /eall show phyerrorCounters > Phy.txt
- storcli /c0 show termlog > Termlog.txt
- storcli /c0/eall/sall show all > PD.txt
- storcli /c0/vall show all > VD.txt
- storcli /c0/cv show all > BBU.txt

驗證

目前沒有適用於此組態的驗證程序。

疑難排解

目前尚無適用於此組態的具體疑難排解資訊。