UltraM — 排除StarOS EMCtrl錯誤「找不到VDU」

目錄

簡介

本文檔介紹在思科Ultra服務平台(UltraM)中的虛擬化資料包核心(VPC)卡在引導過程中出現「找不到VDU」錯誤（如顯示日誌所示）時，排除故障的步驟。

背景資訊

```
Sample:

2017-Sep-26+08:05:05.839 [emctrl 218804 error] [2/0/16829 <emctrl:0> emctrl_vnf.c:828] [software
internal system syslog] Failed to find VDU, of card number <1>
```

如果進一步檢查日誌，您會看到非常具體的錯誤，指出卡型別與Extension Mobility(EM)資訊不匹配：

```
2017-Sep-26+08:03:32.126 [emctrl 218802 info] [2/0/16829 <emctrl:0> emctrl_util.c:381] [software
internal system critical-info syslog] siti msg for standby CF, card type doesn't match EM,
reboot it
2017-Sep-26+08:03:32.126 [emctrl 218802 info] [2/0/16829 <emctrl:0> emctrl_util.c:376] [software
internal system critical-info syslog] siti card 1 card type drvctrl 40010100, siti 0
2017-Sep-26+08:03:32.126 [emctrl 218802 info] [2/0/16829 <emctrl:0> emctrl_util.c:329] [software
internal system critical-info syslog] siti sync msg received for card 1 with cardtype 40010100,
uuid 9F1F2B1E-35FC-4AF9-807A-E856336702D6
2017-Sep-26+08:03:32.105 [system 1004 info] [2/0/9741 <evlogd:0> evlgd_syslogd.c:279] [software
internal system syslog] CPU[2/0]:  sitiserv[9533]: SITI_PRESENT: invoking notify card present
cmd notify_card_present 1 0 0x40010100 9F1F2B1E-35FC-4AF9-807A-E856336702D6
```

要檢查的命令

從錯誤中可看出，存在受影響卡的通用唯一識別符號(UUID) — 在此示例中，UUID為9F1F2B1E-35FC-4AF9-807A-E856336702D6。

理想情況下，此UUID應與**show emctrl vdu detail output**命令的輸出匹配。

show emctrl vdu detail是隱藏命令。

```
[local]UltraM-QVPC-DI# show emctrl vdu detail
Showing emctrl vdu
card[01]: name[CFC_01 ] uuid[1FE70E43-0F33-4E17-8BFA-439169CD52BA]
card[02]: name[CFC_02 ] uuid[3AFC540B-546E-4F35-A645-A23E62C32C59]
card[03]: name[SFC_03 ] uuid[93359FA0-09C2-4F7C-93F6-17BE0A2AF49F]
card[04]: name[SFC_04 ] uuid[E02C8AAA-7E8A-4881-8018-6EC59963C8F6]
card[05]: name[SFC_05 ] uuid[6F297BF6-4AFC-43AB-A36D-FCD0FAE39DA3]
```

如果此輸出為空，則EMCtrl進程可能已損壞。

此ID應該與在EM上看到的相同，如突出顯示：

```
admin@scm# show vdus vdu card-type session-function
vdus vdu session-function
card-type session-function
vnfci BOOT_generic_di-chassis_SF1_1
constituent-element-group di-chassis
is-infra true
initialized false
 vim-id 93359fa0-09c2-4f7c-93f6-17be0a2af49f
vnfci BOOT_generic_di-chassis_SF2_1
constituent-element-group di-chassis
is-infra true
initialized false
vim-id e02c8aaa-7e8a-4881-8018-6ec59963c8f6
vnfci BOOT_generic_di-chassis_SF3_1
constituent-element-group di-chassis
is-infra true
initialized false
vim-id 54e9a5d6-f4dd-4636-95d3-b29443ebfa14
```

使用以下命令可以找到有關StarOS端此例項的詳細資訊：

```
[local]UltraM-QVPC-DI# show vdu detail type session-function instance BOOT_generic_di-
chassis_SF1_1
vdu-id: session-function, vdu-instance: BOOT_generic_di-chassis_SF1_1, state: from:Invalid
to:Alive
card_number: 3, card_type: 0x42030100, uuid:93359fa0-09c2-4f7c-93f6-17be0a2af49f
networks:
cp-id: di_intf1, state: Alive, type: unknown
vl: vl-di-internal1 vnfc: sf-vnfc-di-chassis
mac: fa:16:3e:87:ac:e4, ip: 192.168.1.12
cp-id: di_intf2, state: Alive, type: unknown
vl: vl-di-internal2 vnfc: sf-vnfc-di-chassis
mac: fa:16:3e:92:ea:26, ip: 192.168.2.11
cp-id: orch, state: Alive, type: unknown
vl: vl-orchestration vnfc: sf-vnfc-di-chassis
mac: fa:16:3e:1e:f5:b5, ip: 172.16.180.21
cp-id: svc_intf1, state: Alive, type: unknown
vl: vl-service-network1 vnfc: sf-vnfc-di-chassis
mac: fa:16:3e:bf:c8:6f, ip: 10.10.10.2
cp-id: svc_intf2, state: Alive, type: unknown
vl: vl-service-network2 vnfc: sf-vnfc-di-chassis
mac: fa:16:3e:15:a9:22, ip: 20.20.20.7
cp-id: svc_intf3, state: Alive, type: unknown
vl: vl-service-network1 vnfc: sf-vnfc-di-chassis
mac: fa:16:3e:1f:fa:0c, ip: 10.10.10.6
cp-id: svc_intf4, state: Alive, type: unknown
```

```
vl: vl-service-network2 vnfc: sf-vnfc-di-chassis
mac: fa:16:3e:2f:6b:00, ip: 20.20.20.10
```

不一致場景1:EMCtrl與EM VDU例項上顯示的不同ID

如果您注意卡5的ID，可以看到它是6F297BF6-4AFC-43AB-A36D-FCD0FAE39DA3。

```
[local]UltraM-QVPC-DI# show emctrl vdu detail
Showing emctrl vdu
card[01]: name[CFC_01 ] uuid[1FE70E43-0F33-4E17-8BFA-439169CD52BA]
card[02]: name[CFC_02 ] uuid[3AFC540B-546E-4F35-A645-A23E62C32C59]
card[03]: name[SFC_03 ] uuid[93359FA0-09C2-4F7C-93F6-17BE0A2AF49F]
card[04]: name[SFC_04 ] uuid[E02C8AAA-7E8A-4881-8018-6EC59963C8F6]
card[05]: name[SFC_05 ] uuid[6F297BF6-4AFC-43AB-A36D-FCD0FAE39DA3]
```

然而，如果您在EM上檢查相同的ID，則不會找到它：

```
admin@scm# show vdus | include vim
vim-id 1fe70e43-0f33-4e17-8bfa-439169cd52ba ---> CF 1
vim-id 3afc540b-546e-4f35-a645-a23e62c32c59 ---> CF 2
vim-id 93359fa0-09c2-4f7c-93f6-17be0a2af49f ---> SF 3
vim-id e02c8aaa-7e8a-4881-8018-6ec59963c8f6 ---> SF 4
vim-id 54e9a5d6-f4dd-4636-95d3-b29443ebfa14 ---> ?
```

因此您可以看到，對於插槽5中的卡，似乎存在不一致。

當您在StarOS上簽入特定ID的更多詳細資訊時，現在您會看到，使用**show vdu detail**命令時，ID實際上與EM端顯示的ID相同：

```
[local]UltraM-QVPC-DI# show vdu detail type session-function instance BOOT_generic_di-
chassis_SF3_1
vdu-id: session-function, vdu-instance: BOOT_generic_di-chassis_SF3_1, state: from:Invalid
to:Alive
card_number: 5, card_type: 0x42030100, uuid:54e9a5d6-f4dd-4636-95d3-b29443ebfa14
```

這樣，您就可以確認EMCtrl過程沒有正確的資訊。

如果檢查日誌，則會看到以下警告：

```
2017-Sep-26+08:36:31.317 UltraM-QVPC-DI [emctrl 218802 info] [2/0/20871 <emctrl:0>
emctrl_util.c:579] [software internal system critical-info syslog] drvctrl uuid mismatch
/6F297BF6-4AFC-43AB-A36D-FCD0FAE39DA3 with em uuid 54e9a5d6-f4dd-4636-95d3-b29443ebfa14, use
drvctrl uuid
```

1.如果終止EMCtrl任務，則無濟於事。

2.此外，如果重新啟動該卡，則無濟於事。

不一致情形2：顯示EMCtrl VDU詳細資訊為空

這可能是由於EMCtrl表損壞所致，根據您目前掌握的知識，這是錯誤的後果。

show emctrl vdu list的輸出將完全為空：

```
Showing emctrl vdu
```

```
card[01]: name[                                                    ] uuid[          ]
card[02]: name[                                                    ] uuid[          ]
```

若要從VNFM代理端檢查卡的實際狀態：

```
#show vdu detail type control-function instance  BOOT_generic_di-chasis_CF1_1

vdu-id: control-function, vdu-instance: BOOT_generic_di-chasis_CF1_1, state: from:Invalid
to:Alive
```

已知錯誤: CSCvf32599

解決方法：重新啟動EMCtrl任務：

```
task kill facility emctrl all
```

不一致場景3：卡表中缺少CF，EM中不存在

有時，您會看到卡表中缺少SF或CF。

從輸出中您可以看到，StarOS只看到一個CF卡：

```
[local]AUPGW101# show card tabl
Wednesday September 27 09:26:46 UTC 2017
Slot Card Type Oper State SPOF Attach
---------- ------------------------------------ ------------- ---- ------
1: CFC Control Function Virtual Card Active Yes
3: FC 4-Port Service Function Virtual Card Active No
4: FC 4-Port Service Function Virtual Card Active No
5: FC 4-Port Service Function Virtual Card Active No
6: FC 4-Port Service Function Virtual Card Active No
7: FC 4-Port Service Function Virtual Card Active No
8: FC 4-Port Service Function Virtual Card Active No
9: FC 4-Port Service Function Virtual Card Active No
10: FC 4-Port Service Function Virtual Card Standby -
```

但是，如果檢查卡2的調試控制檯，您會看到它嘗試聯機：

```
[local]AUPGW101# debug consol card 1 cpu 0
Wednesday September 27 09:26:58 UTC 2017
[local]AUPGW101# 2017-Sep-27+09:23:18.370 card 1-cpu0: collect persistdump for card <2> success
2017-Sep-27+09:24:22.112 card 1-cpu0: Hatsystem rcvd card 2/0 fail req from card (1) emctrl/0 -
32:150:3
2017-Sep-27+09:24:22.115 card 1-cpu0: The Control Function Virtual Card with serial number in
slot 2 has failed and will be brought down and brought back online. (Device=CARD,
Reason=EMCTRL_CARDTYPE_MISMATCH, Status=0)
```

正如您在show log中看到的，EMCtrl認為CF在EM中不存在：

```
2017-Sep-27+09:27:13.964 [emctrl 218802 info] [1/0/7805 <emctrl:0> emctrl_util.c:357] [software
internal system critical-info syslog] siti msg for standby CF, but doesn't exist in EM, reboot
it
2017-Sep-27+09:27:13.964 [emctrl 218802 info] [1/0/7805 <emctrl:0> emctrl_util.c:329] [software
internal system critical-info syslog] siti sync msg received for card 2 with cardtype 40010100,
uuid C6217904-8F65-4C48-B607-4F13EAE6745D
2017-Sep-27+09:27:13.939 [system 1004 info] [1/0/7684 <evlogd:0> evlgd_syslogd.c:279] [software
```

```
internal system syslog] CPU[1/0]: sitiserv[3063]: SITI_PRESENT: invoking notify card present cmd
notify_card_present 2 0 0x40010100 C6217904-8F65-4C48-B607-4F13EAE6745D
```

您確實可以確認：

```
[local]AUPGW101# show emctrl vdu list
Wednesday September 27 09:30:21 UTC 2017
Showing emctrl vdu
card[01]: name[CFC_01 ] uuid[42913D9A-91A9-4E5E-8473-AEADD73BEC08]
card[03]: name[SFC_03 ] uuid[CB2C4429-0965-4394-8200-ABB4071BB067]
card[04]: name[SFC_04 ] uuid[17997C02-DF9F-40BC-8A41-D2B9D448D47C]
card[05]: name[SFC_05 ] uuid[159F91EE-B6A4-4DE6-A8C9-F900CD087093]
card[06]: name[SFC_06 ] uuid[7EE371A9-4E64-477F-AA09-42B6ED70B92B]
card[07]: name[SFC_07 ] uuid[DF2D38F2-01FD-4E95-97EC-4B1EB75683FD]
card[08]: name[SFC_08 ] uuid[E7D7F817-09C6-4EBA-9537-A66A686713A1]
card[09]: name[SFC_09 ] uuid[B24BE6CC-EB7B-483D-A859-284EF638647C]
card[10]: name[SFC_10 ] uuid[2AAD074F-C65C-4708-AAA9-A76588BD434D]
```

解決方法：重新啟動EMCtrl任務。

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）。