

# 對4G ASR KPI效能降低進行故障排除，因為mme-hss-user-unknown斷開原因增加

## 目錄

[簡介](#)

[必要條件](#)

[需求](#)

[採用元件](#)

[縮寫](#)

[問題](#)

[疑難排解](#)

[解決方案](#)

## 簡介

本文描述如何解決當mme-hss-user-unknown斷開原因增加時，4G連線成功率(ASR)關鍵效能指標(KPI)出現降級時發生的問題。

## 必要條件

## 需求

思科建議您瞭解以下主題：

- 5000/5500的硬體知識
- StarOS

## 採用元件

本文件所述內容不限於特定軟體和硬體版本。

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。

## 縮寫

ASR  
KPI

配售成功率  
關鍵績效指標

空氣  
AIA  
CER  
CEA  
MME  
HSS  
DPC  
RFC  
AVP

身份驗證資訊請求  
驗證資訊應答  
功能交換請求  
功能交換答案  
行動化管理實體  
家庭使用者伺服器  
資料處理卡  
要求建議  
屬性 — 值對

## 問題

服務提供商報告一個MME中的4G ASR降級，並且斷開原因「mme-hss-user-unknown」增加。

「mme-hss-user-unknown(375)」斷開原因描述由於MME HSS使用者未知而斷開的會話總數。

捕獲的一個故障跟蹤報告HSS在AIA消息中拒絕身份驗證作為結果代碼  
DIAMETER\_MISSING\_AVP(5005)。

MME不斷從HSS獲得「DIAMETER\_MISSING\_AVP(5005)」，AIA消息出現故障的情況如下：

```
INBOUND>>>> From diamproxy:52 oxy_conn_mgmt.c:3406 (Callid 4c0ea07a) 08:42:11:109
Eventid:81991(5)
Diameter message from 10.5.40.X:6000 to 10.0.231.Y:49417
Base Header Information:
  Version:          0x01          (1)
  Message Length:   0x000110      (272)
  Command Flags:    0x40          (64)  PXY
  Command Code:     0x00013e      (318) Authentication-Information-Answer
  Application ID:   0x01000023    (16777251)  3GPP-S6a
  Hop2Hop-ID:      0xad40545     (2914256197)
  End2End-ID:      0x2cafadd5    (749710805)
AVP Information:
  [M] Session-Id
    Code:           0x00000107    (263) Session-Id
    Flags:          0x40          (64)  [M]
    Length:         0x000069      (105)
    Data: 0004-
diamproxy.MMEC001.MMEGI32000.MME.EPC.MNC0XY.MCC404.3GPPNET;1276027002;2496613;5c204e8b-16502
  [M] Auth-Session-State
    Code:           0x00000115    (277) Auth-Session-State
    Flags:          0x40          (64)  [M]
    Length:         0x00000c      (12)
    Data: NO_STATE_MAINTAINED (1)
  [M] Origin-Host
    Code:           0x00000108    (264) Origin-Host
    Flags:          0x40          (64)  [M]
    Length:         0x000033      (51)
    Data: hss101.epc.mnc0XY.mcc404.3gppnetwork.org
  [M] Origin-Realm
    Code:           0x00000128    (296) Origin-Realm
    Flags:          0x40          (64)  [M]
    Length:         0x000029      (41)
    Data: epc.mnc0XY.mcc404.3gppnetwork.org
  [M] Result-Code
    Code:           0x0000010c    (268) Result-Code
    Flags:          0x40          (64)  [M]
```

```

Length:      0x00000c   (12)
Data: DIAMETER_MISSING_AVP (5005) >> DIAMETER_MISSING_AVP(5005)received from HSS
[M] Failed-AVP
Code:        0x00000117 (279) Failed-AVP
Flags:       0x40        (64) [M]
Length:      0x000018   (24)
[V] [M] Visited-PLMN-Id
Code:        0x0000057f (1407) Visited-PLMN-Id
Flags:       0xc0        (192) [V] [M]
Length:      0x00000d   (13)
Vendor-Id: 0x000028af (10415) 3GPP
Data: 0x00

```

## 疑難排解

本節提供的資訊可用於解決由於mme-hss-user-unknown斷開原因增加而導致ASR KPI降級的問題。

對收集的「mon sub」進行跟蹤，並將其與成功和失敗方案進行比較。從MME到HSS伺服器的AIR中缺少受支援的功能AVP。

從mon子跟蹤中捕獲成功的AIR和AIA消息。這是從MME傳送到HSS的AIR消息：

```

Monday December 24 2018
<<<<OUTBOUND From diamproxy:49 diamproxy_rlf.c:553 (Callid 62adced4) 08:42:39:580
Eventid:81990(5)
Diameter message from 10.0.231.Y:48273 to 10.5.40.X:6000
Base Header Information:
Version:      0x01        (1)
Message Length: 0x0001c4   (452)
Command Flags: 0xc0        (192) REQ PXY
Command Code: 0x00013e   (318) Authentication-Information-Request
Application ID: 0x01000023(16777251) 3GPP-S6a
Hop2Hop-ID:   0xadbf12a   (2914906410)
End2End-ID:   0x60bd9382   (1623036802)
AVP Information:
[M]Session-Id
Code:         0x00000107 (263) Session-Id
Flags:        0x40        (64) [M]
Length:       0x000069   (105)
Data: 0001-
diamproxy.MMEC001.MMEGI32000.MME.EPC.MNC0XY.MCC404.3GPPNET;1655557844;4204805;5c204ea7-30502
[M]Auth-Session-State
Code:         0x00000115 (277) Auth-Session-State
Flags:        0x40        (64) [M]
Length:       0x00000c   (12)
Data: NO_STATE_MAINTAINED (1)
[M]Origin-Host
Code:         0x00000108 (264) Origin-Host
Flags:        0x40        (64) [M]
Length:       0x00004f   (79)
Data: 0001-diamproxy.MMEC001.MMEGI32000.MME.EPC.MNC0XY.MCC404.3GPPNETWORK.ORG
[M]Origin-Realm
Code:         0x00000128 (296) Origin-Realm
Flags:        0x40        (64) [M]
Length:       0x00002d   (45)
Data: MME.epc.mnc0XY.mcc404.3gppnetwork.org
[M]Destination-Realm
Code:         0x0000011b (283) Destination-Realm
Flags:        0x40        (64) [M]

```

```

Length:      0x000029 (41)
Data: epc.mnc0XY.mcc404.3gppnetwork.org
[M]User-Name
Code:        0x00000001 (1) User-Name
Flags:       0x40 (64) [M]
Length:      0x000017 (23)
Data: 404XY0000011111
[V]Supported-Features
Code:        0x00000274 (628) Supported-Features
Flags:       0x80 (128) [V]
Length:      0x000038 (56)
Vendor-Id: 0x000028af (10415) 3GPP
[M]Vendor-Id
Code:        0x0000010a (266) Vendor-Id
Flags:       0x40 (64) [M]
Length:      0x00000c (12)
Data: 10415
[V]Feature-List-ID
Code:        0x00000275 (629) Feature-List-ID
Flags:       0x80 (128) [V]
Length:      0x000010 (16)
Vendor-Id: 0x000028af (10415) 3GPP
Data: 1
[V]Feature-List
Code:        0x00000276 (630) Feature-List
Flags:       0x80 (128) [V]
Length:      0x000010 (16)
Vendor-Id: 0x000028af (10415) 3GPP
Data: 469763591
[V] [M]Requested-EUTRAN-Authentication-Info
Code:        0x00000580 (1408) Requested-EUTRAN-Authentication-Info
Flags:       0xc0 (192) [V] [M]
Length:      0x00002c (44)
Vendor-Id: 0x000028af (10415) 3GPP
[V] [M] Number-Of-Requested-Vectors
Code:        0x00000582 (1410) Number-Of-Requested-Vectors
Flags:       0xc0 (192) [V] [M]
Length:      0x000010 (16)
Vendor-Id: 0x000028af (10415) 3GPP
Data: 1
[V] [M] Immediate-Response-Preferred
Code:        0x00000584 (1412) Immediate-Response-Preferred
Flags:       0xc0 (192) [V] [M]
Length:      0x000010 (16)
Vendor-Id: 0x000028af (10415) 3GPP
Data: 1
[V] [M]Visited-PLMN-Id
Code:        0x0000057f (1407) Visited-PLMN-Id
Flags:       0xc0 (192) [V] [M]
Length:      0x00000f (15)
Vendor-Id: 0x000028af (10415) 3GPP
Data: 0x04f4YX

```

從HSS傳送到MME的AIA消息為：

```

INBOUND>>>> From diamproxy:49 oxy_conn_mgmt.c:3406 (Callid 62adced4) 08:42:39:601
Eventid:81991(5)
Diameter message from 10.5.40.X:6000 to 10.0.231.Y:48273
Base Header Information:
Version:      0x01 (1)
Message Length: 0x000198 (408)
Command Flags: 0x40 (64) PXY
Command Code: 0x00013e (318) Authentication-Information-Answer

```

Application ID: 0x01000023(16777251) 3GPP-S6a  
Hop2Hop-ID: 0xadbf12a (2914906410)  
End2End-ID: 0x60bd9382 (1623036802)

AVP Information:

[M]Session-Id

Code: 0x00000107 (263) Session-Id  
Flags: 0x40 (64) [M]  
Length: 0x000069 (105)  
Data: 0001-

diamproxy.MMEC001.MMEGI32000.MME.EPC.MNC0XY.MCC404.3GPPNET;1655557844;4204805;5c204ea7-30502

[M]Auth-Session-State

Code: 0x00000115 (277) Auth-Session-State  
Flags: 0x40 (64) [M]  
Length: 0x00000c (12)  
Data: NO\_STATE\_MAINTAINED (1)

[M]Origin-Realm

Code: 0x00000128 (296) Origin-Realm  
Flags: 0x40 (64) [M]  
Length: 0x000029 (41)  
Data: epc.mnc0XY.mcc404.3gppnetwork.org

[M]Origin-Host

Code: 0x00000108 (264) Origin-Host  
Flags: 0x40 (64) [M]  
Length: 0x000033 (51)  
Data: hss304.epc.mnc0XY.mcc404.3gppnetwork.org

[V] [M]Authentication-Info

Code: 0x00000585 (1413) Authentication-Info  
Flags: 0xc0 (192) [V] [M]  
Length: 0x0000a0 (160)  
Vendor-Id: 0x000028af (10415) 3GPP

[V] [M] EUTRAN-Vector

Code: 0x00000586 (1414) EUTRAN-Vector  
Flags: 0xc0 (192) [V] [M]  
Length: 0x000094 (148)  
Vendor-Id: 0x000028af (10415) 3GPP

[V] [M] Item-Number

Code: 0x0000058b (1419) Item-Number  
Flags: 0xc0 (192) [V] [M]  
Length: 0x000010 (16)  
Vendor-Id: 0x000028af (10415) 3GPP  
Data: 1

[V] [M] RAND

Code: 0x000005a7 (1447) RAND  
Flags: 0xc0 (192) [V] [M]  
Length: 0x00001c (28)  
Vendor-Id: 0x000028af (10415) 3GPP  
Data: 0xc8d8ecce3d684b36ee5aa7aaadaf2658

[V] [M] XRES

Code: 0x000005a8 (1448) XRES  
Flags: 0xc0 (192) [V] [M]  
Length: 0x000014 (20)  
Vendor-Id: 0x000028af (10415) 3GPP  
Data: 0x7a74729d5a811ac9

[V] [M] AUTN

Code: 0x000005a9 (1449) AUTN  
Flags: 0xc0 (192) [V] [M]  
Length: 0x00001c (28)  
Vendor-Id: 0x000028af (10415) 3GPP  
Data: 0xddc5adb739e6800088e9c8135c3099d4

[V] [M] KASME

Code: 0x000005aa (1450) KASME  
Flags: 0xc0 (192) [V] [M]  
Length: 0x00002c (44)  
Vendor-Id: 0x000028af (10415) 3GPP

```
Data: 0xbf4c4f11f05d9c8c1e39d1066c6cdb92080760e40d0273b015cffffd4a20325fc
[M]Result-Code
Code: 0x0000010c (268) Result-Code
Flags: 0x40 (64) [M]
Length: 0x00000c (12)
Data: DIAMETER_SUCCESS (2001)
```

從mon子跟蹤捕獲故障AIR和AIA消息。

從MME傳送到HSS的AIR消息為：

```
<<<<OUTBOUND From diamproxy:52 diamproxy_rlf.c:553 (Callid 4c0ea07a) 08:42:11:089
Eventid:81990(5)
```

```
Diameter message from 10.0.231.Y:49417 to 10.5.40.X:6000
```

```
Base Header Information:
```

```
Version: 0x01 (1)
Message Length: 0x000150 (336)
Command Flags: 0xc0 (192) REQ PXY
Command Code: 0x00013e (318) Authentication-Information-Request
Application ID: 0x01000023 (16777251) 3GPP-S6a
Hop2Hop-ID: 0xad40545 (2914256197)
End2End-ID: 0x2cafadd5 (749710805)
```

```
AVP Information:
```

```
[M] Session-Id
```

```
Code: 0x00000107 (263) Session-Id
Flags: 0x40 (64) [M]
Length: 0x000069 (105)
Data: 0004-
```

```
diamproxy.MMEC001.MMEGI32000.MME.EPC.MNC0XY.MCC404.3GPPNET;1276027002;2496613;5c204e8b-16502
```

```
[M] Auth-Session-State
```

```
Code: 0x00000115 (277) Auth-Session-State
Flags: 0x40 (64) [M]
Length: 0x00000c (12)
Data: NO_STATE_MAINTAINED (1)
```

```
[M] Origin-Host
```

```
Code: 0x00000108 (264) Origin-Host
Flags: 0x40 (64) [M]
Length: 0x00004f (79)
```

```
Data: 0004-diamproxy.MMEC001.MMEGI32000.MME.EPC.MNC0XY.MCC404.3GPPNETWORK.ORG
```

```
[M] Origin-Realm
```

```
Code: 0x00000128 (296) Origin-Realm
Flags: 0x40 (64) [M]
Length: 0x00002d (45)
```

```
Data: MME.epc.mnc0XY.mcc404.3gppnetwork.org
```

```
[M] Destination-Realm
```

```
Code: 0x0000011b (283) Destination-Realm
Flags: 0x40 (64) [M]
Length: 0x000029 (41)
```

```
Data: epc.mnc0XY.mcc404.3gppnetwork.org
```

```
[M] User-Name
```

```
Code: 0x00000001 (1) User-Name
Flags: 0x40 (64) [M]
Length: 0x000017 (23)
```

```
Data: 404XY0000022222
```

從HSS傳送到MME的AIA消息為：

```
INBOUND>>>>> From diamproxy:52 oxy_conn_mgmt.c:3406 (Callid 4c0ea07a) 08:42:11:109
Eventid:81991(5)
```

```
Diameter message from 10.5.40.X:6000 to 10.0.231.Y:49417
```

Base Header Information:

Version: 0x01 (1)
Message Length: 0x000110 (272)
Command Flags: 0x40 (64) PXY
Command Code: 0x00013e (318) Authentication-Information-Answer
Application ID: 0x01000023 (16777251) 3GPP-S6a
Hop2Hop-ID: 0xad40545 (2914256197)
End2End-ID: 0x2cafadd5 (749710805)

AVP Information:

[M] Session-Id
Code: 0x00000107 (263) Session-Id
Flags: 0x40 (64) [M]
Length: 0x000069 (105)
Data: 0004-

diamproxy.MMEC001.MMEGI32000.MME.EPC.MNC0XY.MCC404.3GPPNET;1276027002;2496613;5c204e8b-16502

[M] Auth-Session-State
Code: 0x00000115 (277) Auth-Session-State
Flags: 0x40 (64) [M]
Length: 0x00000c (12)
Data: NO\_STATE\_MAINTAINED (1)

[M] Origin-Host
Code: 0x00000108 (264) Origin-Host
Flags: 0x40 (64) [M]
Length: 0x000033 (51)
Data: hss101.epc.mnc0XY.mcc404.3gppnetwork.org

[M] Origin-Realm
Code: 0x00000128 (296) Origin-Realm
Flags: 0x40 (64) [M]
Length: 0x000029 (41)
Data: epc.mnc0XY.mcc404.3gppnetwork.org

[M] Result-Code
Code: 0x0000010c (268) Result-Code
Flags: 0x40 (64) [M]
Length: 0x00000c (12)
Data: DIAMETER\_MISSING\_AVP (5005)

>>DIAMETER\_MISSING\_AVP(5005)received from

HSS

[M] Failed-AVP
Code: 0x00000117 (279) Failed-AVP
Flags: 0x40 (64) [M]
Length: 0x000018 (24)
[V] [M] Visited-PLMN-Id
Code: 0x0000057f (1407) Visited-PLMN-Id
Flags: 0xc0 (192) [V] [M]
Length: 0x00000d (13)
Vendor-Id: 0x000028af (10415) 3GPP
Data: 0x00

根據 mon子跟蹤，對於0004-diamproxy ( 僅與DPC卡2關聯 )，收到錯誤「DIAMETER\_MISSING\_AVP(5005)」。

[local]SGSN-MME-03# show diameter peers full endpoint DRA1 | grep -i -E "CPU|LOCAL HOST"
Monday December 24 11:34:47 IST 2018
Local Hostname: 0001-diamproxy.MMEC001.MMEGI32000.MME.EPC.MNC0XY.MCC404.3GPPNETWORK.ORG
CPU: 8/1 Task: diamproxy-49
Local Hostname: 0002-diamproxy.MMEC001.MMEGI32000.MME.EPC.MNC0XY.MCC404.3GPPNETWORK.ORG
CPU: 9/1 Task: diamproxy-50
Local Hostname: 0003-diamproxy.MMEC001.MMEGI32000.MME.EPC.MNC0XY.MCC404.3GPPNETWORK.ORG
CPU: 3/1 Task: diamproxy-51
Local Hostname: 0004-diamproxy.MMEC001.MMEGI32000.MME.EPC.MNC0XY.MCC404.3GPPNETWORK.ORG
CPU: 2/1 Task: diamproxy-52
Local Hostname: 0005-diamproxy.MMEC001.MMEGI32000.MME.EPC.MNC0XY.MCC404.3GPPNETWORK.ORG

```

CPU: 4/1 Task: diamproxy-53
Local Hostname: 0006-diamproxy.MMEC001.MMEGI32000.MME.EPC.MNC0XY.MCC404.3GPPNETWORK.ORG
CPU: 7/1 Task: diamproxy-54
Local Hostname: 0001-diamproxy.MMEC001.MMEGI32000.MME.EPC.MNC0XY.MCC404.3GPPNETWORK.ORG
CPU: 8/1 Task: diamproxy-49
Local Hostname: 0002-diamproxy.MMEC001.MMEGI32000.MME.EPC.MNC0XY.MCC404.3GPPNETWORK.ORG
CPU: 9/1 Task: diamproxy-50
Local Hostname: 0003-diamproxy.MMEC001.MMEGI32000.MME.EPC.MNC0XY.MCC404.3GPPNETWORK.ORG
CPU: 3/1 Task: diamproxy-51
Local Hostname: 0004-diamproxy.MMEC001.MMEGI32000.MME.EPC.MNC0XY.MCC404.3GPPNETWORK.ORG
CPU: 2/1 Task: diamproxy-52
Local Hostname: 0005-diamproxy.MMEC001.MMEGI32000.MME.EPC.MNC0XY.MCC404.3GPPNETWORK.ORG
CPU: 4/1 Task: diamproxy-53
Local Hostname: 0006-diamproxy.MMEC001.MMEGI32000.MME.EPC.MNC0XY.MCC404.3GPPNETWORK.ORG
CPU: 7/1 Task: diamproxy-54

```

[local]SGSN-MME-03#

對於僅與DPC卡2關聯的例項sessmgr例項，似乎增加了「mme-hss-user-unknown」斷開原因。

\*\*\*\*\* show task resources \*\*\*\*\*

cpu	facility	task	cputime	memory	files	sessions			
		instused	allc	usedalloc	used	allc	used	allc	S status
2/1	sessmgr	749	3.07%	100%	355.0M	900.0M	173500	881	12000 I good
2/1	sessmgr	762	2.86%	100%	353.3M	900.0M	171500	881	12000 I good

<additional outputs suppressed>

**Disconnect reason for smgr-instance 749:**

```

[local]SGSN-MME-03# show session disconnect-reasons smgr-instance 749|grep -i hss-us
Monday December 24 13:45:17 IST 2018
mme-hss-user-unknown 788 8.97597

```

```

[local]SGSN-MME-03# show session disconnect-reasons smgr-instance 749|grep -i hss-us
Monday December 24 13:45:19 IST 2018
mme-hss-user-unknown 790 8.99158
-----

```

**Disconnect reason for smgr-instance 762:**

```

[local]SGSN-MME-03# show session disconnect-reasons smgr-instance 762|grep -i hss-us
Monday December 24 13:45:26 IST 2018
mme-hss-user-unknown 743 8.16125

```

```

[local]SGSN-MME-03# show session disconnect-reasons smgr-instance 762|grep -i hss-us
Monday December 24 13:45:31 IST 2018
mme-hss-user-unknown 744 8.16147

```

```

[local]SGSN-MME-03# show session disconnect-reasons smgr-instance 762|grep -i hss-us
Monday December 24 13:45:32 IST 2018
mme-hss-user-unknown 749 8.20732

```

```

[local]SGSN-MME-03# show session disconnect-reasons smgr-instance 762|grep -i hss-us
Monday December 24 13:45:34 IST 2018
mme-hss-user-unknown 750 8.20659

```

進一步檢查後，對於具有DPC卡2的HSS對等裝置，支援的供應商ID為「無」。

[local]SGSN-MME-03# show diameter peers full peer-host dra01.epc.mnc0XY.mcc404.3gppnetwork.org

Context: s6a Endpoint: HSS\_DRA01

```

Peer Hostname: dra01.epc.mnc0xy.mcc404.3gppnetwork.org
Local Hostname: 0004-diamproxy.MMEC001.MMEGI32000.MME.EPC.MNC0XY.MCC404.3GPPNETWORK.ORG
Peer Realm: epc.mnc0XY.mcc404.3gppnetwork.org
Local Realm: MME.epc.mnc0XY.mcc404.3gppnetwork.org
Peer Address: 10.5.40.X:6000
State: OPEN [SCTP]
CPU: 2/1 Task: sessmgr-4

```



Messages Out/Queued: H0.L0/H0.L0

**Supported Vendor IDs: None**

>> **Supported Vendor IDs: none instead of**

**10415**

Admin Status: Enable

DPR Disconnect: N/A

Peer Backoff Timer running:N/A

-----  
Peer Hostname: dra01.epc.mnc0xy.mcc404.3gppnetwork.org

Local Hostname: 0004-diamproxymMEC001.MMEGI32000.MME.EPC.MNC0XY.MCC404.3GPPNETWORK.ORG

Peer Realm: epc.mnc0XY.mcc404.3gppnetwork.org

Local Realm: MME.epc.mnc0XY.mcc404.3gppnetwork.org

Peer Address: 10.5.40.X:6000

State: OPEN [SCTP]

CPU: 2/2

Task: sessmgr-8

Messages Out/Queued: H0.L0/H0.L0

**Supported Vendor IDs: None**

>> **Supported Vendor IDs: none instead of**

**10415**

Admin Status: Enable

DPR Disconnect: N/A

Peer Backoff Timer running:N/A

-----  
Peer Hostname: dra01.epc.mnc0xy.mcc404.3gppnetwork.org

Local Hostname: 0004-diamproxymMEC001.MMEGI32000.MME.EPC.MNC0XY.MCC404.3GPPNETWORK.ORG

Peer Realm: epc.mnc0XY.mcc404.3gppnetwork.org

Local Realm: MME.epc.mnc0XY.mcc404.3gppnetwork.org

Peer Address: 10.5.40.X:6000

State: OPEN [SCTP]

CPU: 2/0

Task: sessmgr-15

Messages Out/Queued: H0.L0/H0.L0

**Supported Vendor IDs: None**

>> **Supported Vendor IDs: none instead of**

**10415**

Admin Status: Enable

DPR Disconnect: N/A

Peer Backoff Timer running:N/A

-----  
Peer Hostname: dra01.epc.mnc0xy.mcc404.3gppnetwork.org

Local Hostname: 0004-diamproxymMEC001.MMEGI32000.MME.EPC.MNC0XY.MCC404.3GPPNETWORK.ORG

Peer Realm: epc.mnc0XY.mcc404.3gppnetwork.org

Local Realm: MME.epc.mnc0XY.mcc404.3gppnetwork.org

Peer Address: 10.5.40.X:6000

State: OPEN [SCTP]

CPU: 2/0

Task: sessmgr-20

Messages Out/Queued: H0.L0/H0.L0

**Supported Vendor IDs: None**

>> **Supported Vendor IDs: none instead of**

**10415**

Admin Status: Enable

DPR Disconnect: N/A

Peer Backoff Timer running:N/A

-----  
Peer Hostname: dra01.epc.mnc0xy.mcc404.3gppnetwork.org

Local Hostname: 0004-diamproxymMEC001.MMEGI32000.MME.EPC.MNC0XY.MCC404.3GPPNETWORK.ORG

Peer Realm: epc.mnc0XY.mcc404.3gppnetwork.org

Local Realm: MME.epc.mnc0XY.mcc404.3gppnetwork.org

Peer Address: 10.5.40.X:6000

State: OPEN [SCTP]

CPU: 2/1

Task: sessmgr-27

Messages Out/Queued: H0.L0/H0.L0

**Supported Vendor IDs: None**

>> **Supported Vendor IDs: none instead of**

**10415**

Admin Status: Enable

DPR Disconnect: N/A

Peer Backoff Timer running:N/A

# 解決方案

「支援的供應商ID」AVP似乎沒有與DPC卡2協商，因此只觀察到該卡的故障。

根據RFC 3588,

**Supported-Vendor-Id AVP** — 這用於CER和CEA消息中，以通知對等體傳送方支援 ( AVP中標識的供應商所定義的供應商特定AVP的子集 )。

**Vendor-Id AVP** — 與Supported-Vendor-Id AVP結合使用，可用於瞭解哪些供應商特定的屬性可能會傳送到對等體。

為了在diameter對等體與客戶端之間交換功能，向服務提供商建議此行動計畫。

行動計畫是遷移DPC卡2和備用DPC卡10。

```
[local]SGSN-MME-03# card migrate from 2 to 10
```

```
Are you sure? [Yes|No]: yes
```

服務提供商執行了與備用DPC卡10的DPC卡2遷移。

在活動後，對於具有各自的hss-peer的卡10，支援的供應商ID(10415)似乎正常，ASR KPI似乎也正常。

```
[local]SGSN-MME-03# show diameter peers full peer-host dra01.epc.mnc0XY.mcc404.3gppnetwork.org
```

```
-----  
Context: s6a Endpoint: HSS_DRA01  
-----
```

```
Peer Hostname: dra01.epc.mnc0xy.mcc404.3gppnetwork.org  
Local Hostname: 0004-diamproxy.MMEC001.MMEGI32000.MME.EPC.MNC0XY.MCC404.3GPPNETWORK.ORG  
Peer Realm: epc.mnc0XY.mcc404.3gppnetwork.org  
Local Realm: MME.epc.mnc0XY.mcc404.3gppnetwork.org  
Peer Address: 10.5.40.X:6000  
State: OPEN [SCTP]  
CPU: 10/1 Task: sessmgr-4  
Messages Out/Queued: H0.L0/H0.L0  
Supported Vendor IDs: 10415 >> Supported Vendor IDs: 10415  
Admin Status: Enable  
DPR Disconnect: N/A  
Peer Backoff Timer running:N/A
```

```
-----  
Peer Hostname: dra01.epc.mnc0xy.mcc404.3gppnetwork.org  
Local Hostname: 0004-diamproxy.MMEC001.MMEGI32000.MME.EPC.MNC0XY.MCC404.3GPPNETWORK.ORG  
Peer Realm: epc.mnc0XY.mcc404.3gppnetwork.org  
Local Realm: MME.epc.mnc0XY.mcc404.3gppnetwork.org  
Peer Address: 10.5.40.X:6000  
State: OPEN [SCTP]  
CPU: 10/0 Task: sessmgr-15  
Messages Out/Queued: H0.L0/H0.L0  
Supported Vendor IDs: 10415 >> Supported Vendor IDs: 10415  
Admin Status: Enable  
DPR Disconnect: N/A  
Peer Backoff Timer running:N/A
```

```
-----  
Peer Hostname: dra01.epc.mnc0xy.mcc404.3gppnetwork.org  
Local Hostname: 0004-diamproxy.MMEC001.MMEGI32000.MME.EPC.MNC0XY.MCC404.3GPPNETWORK.ORG  
Peer Realm: epc.mnc0XY.mcc404.3gppnetwork.org  
Local Realm: MME.epc.mnc0XY.mcc404.3gppnetwork.org  
Peer Address: 10.5.40.X:6000  
State: OPEN [SCTP]  
CPU: 10/1 Task: sessmgr-27  
Messages Out/Queued: H0.L0/H0.L0  
Supported Vendor IDs: 10415 >> Supported Vendor IDs: 10415  
Admin Status: Enable
```

DPR Disconnect: N/A  
Peer Backoff Timer running:N/A

-----

Peer Hostname: dra01.epc.mnc0xy.mcc404.3gppnetwork.org

Local Hostname: 0004-diamproxy.MMEC001.MMEGI32000.MME.EPC.MNC0XY.MCC404.3GPPNETWORK.ORG

Peer Realm: epc.mnc0XY.mcc404.3gppnetwork.org

Local Realm: MME.epc.mnc0XY.mcc404.3gppnetwork.org

Peer Address: 10.5.40.X:6000

State: OPEN [SCTP]

CPU: 10/2

Task: sessmgr-29

Messages Out/Queued: H0.L0/H0.L0

**Supported Vendor IDs: 10415**

**>> Supported Vendor IDs: 10415**

Admin Status: Enable

DPR Disconnect: N/A

Peer Backoff Timer running:N/A

<additional outputs suppressed>

在MME和HSS之間建立Diameter對等連線以便交換操作Diameter消息時，支援的供應商ID應為「10415」值。