

Dépannage de la dégradation des indicateurs de performance clés ASR 4G due à une augmentation de la raison de déconnexion inconnue de l'utilisateur mme-hss

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Introduction

Ce document décrit comment dépanner le problème qui se produit lorsque la dégradation de l'indicateur de performance clé (KPI) de l'attachement 4G se produit lorsque la raison de déconnexion `m-hss-user-inconnu` est augmentée.

Conditions préalables

Conditions requises

Cisco vous recommande de prendre connaissance des rubriques suivantes :

- Connaissances matérielles de 5000/5500
- StarOS

Components Used

Ce document n'est pas limité à des versions de matériel et de logiciel spécifiques.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. Si votre réseau est en ligne, assurez-vous de bien comprendre l'incidence possible des commandes.

Abréviations

ASR	Attacher le taux de réussite
KPI	Indicateur de performance clé
AIR	Demande d'informations d'authentification
AIA	Réponse des informations d'authentification
URCE	Demande d'échange de capacités
CEA	Réponse d'échange de capacité
MME	Entité de gestion de la mobilité
HSS	Serveur d'abonné domestique
DPC	Carte de traitement des données
RFC	Demande de commentaires
AVP	Paire de valeur d'attribut

Problème

Le fournisseur de services a signalé la dégradation de l'ASR 4G dans un MME et la raison de déconnexion 'mme-hss-user-inconnu' a été augmentée.

«mme-hss-user-inconnu(375)" raison de déconnexion décrit le nombre total de sessions déconnectées parce que l'utilisateur MME HSS est inconnu.

Une trace d'échec capturée a signalé que HSS rejetait l'authentification en tant que code de résultat DIAMETER_MISSING_AVP (5005) dans le message AIA.

MME a constamment reçu « DIAMETER_MISSING_AVP (5005)" de HSS et voici à quoi ressemble le message AIA d'échec :

```
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

```

Dépannage

Cette section fournit des informations que vous pouvez utiliser afin de résoudre le problème de dégradation des KPI ASR en raison d'une augmentation de la raison de déconnexion inconnue de l'utilisateur me-hss.

Le « mon sub » collecté est suivi et comparé au scénario de réussite et d'échec. L'AVP des fonctionnalités prises en charge est manquante dans l'AIR du serveur MME au serveur HSS.

Les messages AIR et AIA réussis sont capturés à partir de la **sous-trace de mon**. Voici le message AIR envoyé de MME à HSS :

```

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.MNCOXY.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

Le message AIA envoyé de HSS à MME est le suivant :

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)

```

Les messages d'erreur AIR et AIA sont capturés à partir de la sous-trace de mon.

Le message AIR envoyé de MME à HSS est le suivant :

```

<<<<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
```

Le message AIA envoyé de HSS à MME est le suivant :

```
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
```

Selon la **commande mon sub trace**, l'erreur « DIAMETER_MISSING_AVP (5005) » est reçue pour 0004-diamproxy, qui est associé à la carte DPC 2 uniquement.

```
[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#

Il semble que la raison de déconnexion soit 'mme-hss-user-inconnu' est augmentée pour l'instance de sessmgr qui est associée à l'instance de carte DPC 2 uniquement.

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

cpu	facility	task	cputime	memory	files	sessions				
		instused	allc	used	alloc	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
```

Si cette case est cochée plus loin, les ID de fournisseur pris en charge étaient 'aucun' pour l'homologue HSS avec carte DPC 2.

[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-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: 2/2 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-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: 2/0 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-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: 2/0 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-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-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
```

Solution

Il semble que l'AVP « ID de fournisseur pris en charge » n'est pas négocié avec la carte DPC 2 et donc l'échec est observé pour cette carte seulement.

Selon la RFC 3588,

Supported-Vendor-Id AVP - Utilisé dans les messages CER et CEA afin d'informer l'homologue que l'expéditeur prend en charge (un sous-ensemble) les AVP spécifiques au fournisseur définis par le fournisseur identifié dans cet AVP.

ID fournisseur AVP - En combinaison avec l'ID fournisseur pris en charge AVP, ceci peut être utilisé afin de savoir quels attributs spécifiques au fournisseur peuvent être envoyés à l'homologue.

Afin d'échanger les capacités entre homologue de diamètre et client, ce plan d'action est suggéré au fournisseur de services.

Le plan d'action consiste à migrer la carte DPC 2 avec la carte DPC 10 de secours.

```
[local]SGSN-MME-03# card migrate from 2 to 10
Are you sure? [Yes|No]: yes
```

Le fournisseur de services a effectué la migration de la carte DPC 2 avec la carte DPC de secours 10.

Après activité, les ID de fournisseur pris en charge(10415) semblaient corrects pour la carte 10 avec le pair hss respectif et l'indicateur de performance clé ASR semblait également correct.

```
[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>

Les ID de fournisseur pris en charge doivent être de la valeur '10415' lorsque la connexion homologue de diamètre est établie entre MME et HSS afin d'échanger les messages de diamètre opérationnel.