

Solucionar problemas de degradação de KPI ASR 4G devido a um aumento no motivo de desconexão mme-hss-user-unknown

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Introduction

Este documento descreve como solucionar o problema que ocorre quando a degradação do Indicador de Desempenho Chave (KPI - Key Performance Indicator) 4G Attach Success Rate (ASR) ocorre quando o motivo de desconexão **mme-hss-user-unknown** é aumentado.

Prerequisites

Requirements

A Cisco recomenda que você tenha conhecimento destes tópicos:

- Conhecimento de hardware do 5000/5500
- StarOS

Componentes Utilizados

Este documento não se restringe a versões de software e hardware específicas.

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. Se a rede estiver ativa, certifique-se de que você entenda o impacto potencial de qualquer comando.

Abreviaturas

ASR	Anexar taxa de sucesso
KPI	Indicador-chave de desempenho
AR	Solicitação de informações de autenticação
AIA	Resposta de informações de autenticação
CER	Solicitação de troca de recursos
CEA	Resposta de troca de recursos
MME	Entidade de gerenciamento de mobilidade
HSS	Home Subscriber Server
DPC	Placa de processamento de dados
RFC	Solicitação de comentários
AVP	Par atributo-valor

Problema

O provedor de serviços relatou a degradação do ASR 4G em um MME e o motivo da desconexão 'mme-hss-user-unknown' foi aumentado.

"mme-hss-user-unknown(375)" a razão de desconexão descreve o número total de sessões desconectadas porque o usuário do MME HSS é desconhecido.

Um rastreamento de falha capturado relatou que o HSS estava rejeitando a autenticação como código de resultado DIAMETER_MISSING_AVP (5005) na mensagem AIA.

O MME obteve constantemente "DIAMETER_MISSING_AVP (5005)" do HSS e é assim que a mensagem de falha do AIA se parece:

```
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

```

Troubleshoot

Esta seção fornece informações que você pode usar para solucionar o problema de degradação de KPI ASR devido a um aumento no motivo de desconexão mme-hss-user-unknown.

O "submarino mon" coletado é rastreado e comparado ao cenário de sucesso e falha. O AVP de recursos suportados está ausente no AIR do MME para o servidor HSS.

As mensagens AIA e AIR bem-sucedidas são capturadas do **subrastreamento mon**. Esta é a mensagem AIR enviada de MME para 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.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

```

A mensagem AIA enviada do HSS para o MME é:

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)
```

As mensagens AIR e AIA com falha são capturadas do **subrastreamento mon.**

A mensagem AIR enviada de MME para HSS é:

```
<<<<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

A mensagem AIA enviada do HSS para o MME é:

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

De acordo com o **sub trace mon**, o erro "DIAMETER_MISSING_AVP (5005)" é recebido para 0004-diamproxy, que está associado somente à placa DPC 2.

```
[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#

Parece ser que o motivo de desconexão mme-hss-user-unknown é aumentado para a instância do sessmgr que está associada somente à placa DPC 2.

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

cpu	facility	task	cputime		memory		files		sessions		S	status
			instused	allc	used	alloc	used	allc	used	allc		
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

```

Quando verificado novamente, os IDs de fornecedor suportados foram 'none' para o par HSS com a placa 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
10415

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

Admin Status: Enable

DPR Disconnect: N/A

Peer Backoff Timer running:N/A

Solução

Parece que o AVP "Suported Vendor IDs" não é negociado com a placa DPC 2 e, portanto, a falha é observada apenas para essa placa.

Conforme o RFC 3588,

Support-Vendor-Id AVP - É usado nas mensagens CER e CEA para informar ao peer que o remetente suporta (um subconjunto de) AVPs específicos do fornecedor definidos pelo fornecedor identificado neste AVP.

Vendor-Id AVP - Em combinação com o Support-Vendor-Id AVP, ele pode ser usado para saber quais atributos específicos do fornecedor podem ser enviados ao peer.

Para trocar os recursos entre o ponto de diâmetro e o cliente, este plano de ação é sugerido ao provedor de serviços.

O plano de ação é migrar a Placa DPC 2 com a Placa DPC em standby 10.

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

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

O provedor de serviços realizou a migração da Placa DPC 2 com a placa DPC em standby 10.

Após a atividade, as IDs de fornecedor suportadas (10415) pareceram estar ok para a placa 10 com o respectivo hss-peer e o ASR KPI também parecia estar ok.

```
[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>

As IDs de fornecedor suportadas devem ter o valor '10415' quando a conexão por diâmetro é estabelecida entre MME e HSS para trocar as mensagens de diâmetro operacional.