

Debug Shell في Linux ل TCP غيرتة لملع اهالصل و رطق ل لاصتا ااطخا فاشكتسال

تاوت حمل

[ةمدق مل](#)

[ةسس اسأ تامولعم](#)

[قيقدتلا اياضق](#)

[منحللا طاقتلا ةعومجم](#)

[ل ليلحت PCAP](#)

ةمدق مل

StarOS ااطخا احيحصتة قبط في TCP غيرتة مادختسا ايفيك دن تسمل اذه حضوي في ةدعاسم ل بلطل تالاح ل عفر متي ام ابل اغ. اهالصل و رطق ل لاصتا ااطخا فاشكتسال، ضفخن ي و Diameter لاصتا عفتري ال اذامل اهالصل و Diameter لاصتا ااطخا فاشكتسال لشفي نا نكمي. ةكبشلا و انيوكتل في تاريغت يا (ضرتفم ل نم) ثدحي مل ولو يتح لدابت بلط يوتسم يلع و، يلو ال TCP/IP ضوافت يوتسم يلع رطق ل لاصتا عاشن (CEA) تاردق ل لدابت ةباجتسا / (CER) تاردق ل.

ةسس اسأ تامولعم

تائف في عقت اهنا ف، رطق ل صقتب قلعتت ةيجذومن ةلكشم دجوت ال هنا نيح في، كلذ عمو ةلقل:

- ددحم لوكوتورب و او ةياهن ةطقنل عارظنلا ةفاك فاق ي مت ل اثلما اذه <====
- ل طعم ددحم ذفنم مقرل عارظنلا ددع.
- ةنعم SF و DPC و PSC ةقاطبب ني طبترم ل عارظنلا فاق ي مت.

رخأ نا مغر، ب ناج لدان Diameter ل (يضارتفا) 3868 انيم تلمعتسا TCP يجذومن لكشب peer ل ل ليشتل في 3868 نم فل تخم نو كي نا دكا تو، اضيأ تنيع تنك عيطتسي انيم طخللا ةياهن في ني عي # انيم طخ يقلت ي config

قيقدتلا اياضق

رطق ل ضرع قيرط نع 3gpp-aaa-s6b ةياهنلا ةطقن دادنا نع ريرقت لاسرا مت، انه ل اثلما ي ي ضارتفا لكشب يلاتلابو ريظنلا طوطخ في ددحم ذفنم مقر اهل سي ل و لم اكر يظن و 3869 و 3868 نم ةعومجم ةياهنلا ةطقنل نارق ال مدختسي امن ي ب، 3868 ذفنم ل مادختسا 3870 ني فل تخم ل دادن ال.

طاقن ةفاكل مهن يوكت مت ني ذللا عارظنلا ةفاك نع مالع ال اب ةفاك موقت رطق ل عارظن راهظا ل 3GPP-aaa-s6b ل ةطبترم ل نيوكتل طوطخو مهن يوكت مت عارظن 6 يرن انه. رطق ل ل ةياهنلا #s: صصخم ل ذفنم ل ضعب اه ي دل GY نا ةطخال م عم، (لم عي) GY ل لك لذك و (ل طعم)

```
origin realm epc.mnc260.mcc310.3gppnetwork.org
use-proxy
origin host s6b.IEPCF201.epc.mnc260.mcc310.3gppnetwork.org address 10.168.86.144
max-outstanding 64
route-failure threshold 100
route-failure deadtime 600
route-failure recovery-threshold percent 50
dscp af31
peer mp2.daladra01.dra.epc.mnc260.mcc310.3gppnetwork.org realm epc.mnc260.mcc310.3gppnetwork.org
address 10.160.113.136
peer mp2.elgdra01.dra.epc.mnc260.mcc310.3gppnetwork.org realm epc.mnc260.mcc310.3gppnetwork.org
address 10.160.114.136
peer mp2.nvldra01.dra.epc.mnc260.mcc310.3gppnetwork.org realm epc.mnc260.mcc310.3gppnetwork.org
address 10.160.115.136
peer tsa06.draaro01.dra.epc.mnc260.mcc310.3gppnetwork.org realm
epc.mnc260.mcc310.3gppnetwork.org address 10.162.6.73
peer tsa06.drasyo01.dra.epc.mnc260.mcc310.3gppnetwork.org realm
epc.mnc260.mcc310.3gppnetwork.org address 10.164.57.41
peer tsa06.drawsc01.dra.epc.mnc260.mcc310.3gppnetwork.org realm
epc.mnc260.mcc310.3gppnetwork.org address 10.177.70.201
route-entry peer mp2.daladra01.dra.epc.mnc260.mcc310.3gppnetwork.org
route-entry peer mp2.elgdra01.dra.epc.mnc260.mcc310.3gppnetwork.org
route-entry peer mp2.nvldra01.dra.epc.mnc260.mcc310.3gppnetwork.org
route-entry peer tsa06.draaro01.dra.epc.mnc260.mcc310.3gppnetwork.org
route-entry peer tsa06.drasyo01.dra.epc.mnc260.mcc310.3gppnetwork.org
route-entry peer tsa06.drawsc01.dra.epc.mnc260.mcc310.3gppnetwork.org

#exit
```

```
[local]IEPCF201# show diameter peers all
```

```
Friday December 11 20:27:43 UTC 2020
```

```
Diameter Peer details
```

```
=====
```

```
-----
Context: billing                Endpoint: 3gpp-aaa-s6b
-----
```

```
Peer: mp2.daladra01.dra.epc.mnc260.mc Addr:Port 10.160.113.136:3868
```

```
Peer: mp2.elgdra01.dra.epc.mnc260.mc Addr:Port 10.160.114.136:3868
```

```
Peer: mp2.nvldra01.dra.epc.mnc260.mc Addr:Port 10.160.115.136:3868
```

```
Peer: tsa06.draaro01.dra.epc.mnc260. Addr:Port 10.162.6.73:3868
```

```
Peer: tsa06.drasyo01.dra.epc.mnc260. Addr:Port 10.164.57.41:3868
```

```
Peer: tsa06.drawsc01.dra.epc.mnc260. Addr:Port 10.177.70.201:3868
-----
```

diameter endpoint credit-control

origin realm starent.gy.com

use-proxy

origin host iepcf201.gy address 10.168.86.151

destination-host-avp always

route-failure threshold 100

route-failure deadtime 600

route-failure recovery-threshold percent 50

peer ln24.daladra01.dra.epc3.mnc260.mcc310.3gppnetwork.org realm nsn-gy address 10.160.113.136 port 3869

peer ln24.drawsc01.dra.epc3.mnc260.mcc310.3gppnetwork.org realm nsn-gy address 10.177.70.201 port 3870

peer tsa05.drachr01.dra.epc3.mnc260.mcc310.3gppnetwork.org realm nsn-gy address 10.164.144.88

peer tsa05.draphx01.dra.epc3.mnc260.mcc310.3gppnetwork.org realm nsn-gy address 10.198.93.88

peer tsa05.drapol01.dra.epc3.mnc260.mcc310.3gppnetwork.org realm nsn-gy address 10.182.16.88

peer tsa06.drachr01.dra.epc3.mnc260.mcc310.3gppnetwork.org realm nsn-gy address 10.164.144.89

peer tsa06.draphx01.dra.epc3.mnc260.mcc310.3gppnetwork.org realm nsn-gy address 10.198.93.89

peer tsa06.drapol01.dra.epc3.mnc260.mcc310.3gppnetwork.org realm nsn-gy address 10.182.16.89

route-entry peer ln24.drawsc01.dra.epc3.mnc260.mcc310.3gppnetwork.org weight 20

route-entry peer ln24.daladra01.dra.epc3.mnc260.mcc310.3gppnetwork.org

route-entry peer tsa05.drapol01.dra.epc3.mnc260.mcc310.3gppnetwork.org

route-entry peer tsa06.drapol01.dra.epc3.mnc260.mcc310.3gppnetwork.org

route-entry peer tsa05.drachr01.dra.epc3.mnc260.mcc310.3gppnetwork.org weight 5

route-entry peer tsa05.draphx01.dra.epc3.mnc260.mcc310.3gppnetwork.org weight 5

route-entry peer tsa06.drachr01.dra.epc3.mnc260.mcc310.3gppnetwork.org weight 5

route-entry peer tsa06.draphx01.dra.epc3.mnc260.mcc310.3gppnetwork.org weight 5

#exit

ليكو نيوكت رايج دي دحت متي ، تارادصل الى مظعمل ة بس نلاب هنا الى اضي ا ة راش الى رجتو عي مج يلع لمعت يتي ال ضرع ال ليكو ة ي لمع م ادخت ال ال ASR ب ن ا ج يلع ريظن دادع ال م ادخت ال ال ة فيظو تاقاطب ال تاقاطب ال يمست ثيخ ال ال VPC-DI وه اذه ، ل ا ث م ل لي بس يلع ، ة ط ش ن ال تاقاطب ال ة م د خ ال .

[local]IEPCF201# show task resources facility diamproxy all
Friday December 11 20:34:37 UTC 2020

cpu	facility	task			cputime		memory		files		sessions		
		inst	used	allc	used	alloc	used	allc	used	allc	S	status	
3/0	diamproxy	5	0.12%	90%	41.62M	250.0M	38	2500	--	--	-	good	
5/0	diamproxy	2	0.11%	90%	41.63M	250.0M	51	2500	--	--	-	good	
6/0	diamproxy	6	0.13%	90%	41.62M	250.0M	35	2500	--	--	-	good	
7/0	diamproxy	3	0.12%	90%	41.64M	250.0M	34	2500	--	--	-	good	
8/0	diamproxy	4	0.13%	90%	41.65M	250.0M	34	2500	--	--	-	good	
10/0	diamproxy	1	0.10%	90%	41.64M	250.0M	49	2500	--	--	-	good	
Total		6	0.71%		249.8M		241				0		

[local]IEPCF201#

ءارظن نأ ة ق ي ق ح ط ق ت ل ت ل ضرع ال معد لي ص ا ف ت ن م ل م ا ك ال ر ط ق ال ءارظن ل ك ط ا ق ت ال م ت ي ا ن ه ص ا خ ء ا ط خ ا ح ي ح ص ت ر ا د ص ا ا ذ ه ن ا ظ ح ال . ل م ا ك ل ا ب ة ل ط ع م 3GPP-aaa-S6b ة ي ا ه ن ال ة ط ق ن ل ر ط ق ال ا ض ي ا ر ه ظ ي ه ن ا ف ا ذ ك ه و (SSD) ضرع ال معد لي ص ا ف ت ن م ذ و خ ا م show diameter peers full ر م ا ل ل ي ئ ا ه ن ال د د ع ال ا ف ي ل ا ت ل ا ب و (ا ن ه ج ا ر خ ال ا ر ه ظ ي ال) aamgr ت ا ي ل م ع ب ر ي ظ ن ال ت ا ل ا ص ت ا ع ي م ج ل ف س ا ل ا ي ف ه ضرع م ت ي ن ك ل و ، ي ع ي ب ط ل ك ش ب ه ل ي غ ش ت م ت ا ذ ا م م ر ي ث ك ب ي ل ع ا ت ا ل ا ص ت ال ل م ت (144) ت ا ل ا ص ت ال ن م ل ق ا د د ع ب ي ع ي ب ط ل ك ش ب ه ل ي غ ش ت م ت و ل ا م ك ص خ ل م ل ج ا ر خ ا و ه ع ي م ج ع م ن ك ل و) ط ق ف د ح ا و ر ي ظ ن ت ا ل ص و ضرع م ت ي ا ذ ه ل و ، ة ل ا ق م ل ه ذ ه ب ل م ا ك ال ج ا ر خ ال ا ق ا ف ر ا ز ج و م ل ك ش ب (ة ت س ل ا ء ا ل ك و ل)

ي ف ا ض ا ل ق ح ي ر ت ن ا ك ن ك م ي ث ي ح ، Gy ة ي ا ه ن ط ا ق ن ل ح و ت ف م ل م ع ل ا ص ت ال ل ا ث م ح ض و م وه ا م ك

نارقالا ىلع امنېې پ ASR، ب ن ا ج ى ل ع د و ج و م ل ا ل ا ص ت ا ل ا ط ق ت ل ي ي ذ ل ا ي ل ج م ل ا ن ا و ن ع ل ا ى م س ي
ح ا ل ص ا م ت ن ا د ع ب ج ا ر خ ا ل ا ي ف ا ق ح ا ل ر ه ظ ي . ل ق ح ل ا ا ذ ه د ج و ي ا ل ر و س ك م ل ا 3GPP-aaa-S6b
(ي ل ج م ل ا ن ا و ن ع ل ا ن ي م ص ت م ت ي ث ي ح 3GPP-aaa-s6b ر ي ط ن ل ل ل ي م ع ل ا ة ط س ا و ب ة ل ك ش م ل ا)

***** show diameter peers full *****

Sunday December 13 15:19:00 UTC 2020

Context: billing Endpoint: 3gpp-aaa-s6b

Peer Hostname: mp2.daldra01.dra.epc.mnc260.mcc310.3gppnetwork.org
Local Hostname: 0001-diamproxy.s6b.IEPCF201.epc.mnc260.mcc310.3gppnetwork.org
Peer Realm: epc.mnc260.mcc310.3gppnetwork.org
Local Realm: epc.mnc260.mcc310.3gppnetwork.org
Peer Address: 10.160.113.136:3868
State: IDLE [TCP]
CPU: 10/0 Task: diamproxy-1
Messages Out/Queued: 0/0
Supported Vendor IDs: None
Admin Status: Enable
DPR Disconnect: N/A
Peer Backoff Timer running:N/A

Peer Hostname: mp2.daldra01.dra.epc.mnc260.mcc310.3gppnetwork.org
Local Hostname: 0002-diamproxy.s6b.IEPCF201.epc.mnc260.mcc310.3gppnetwork.org
Peer Realm: epc.mnc260.mcc310.3gppnetwork.org
Local Realm: epc.mnc260.mcc310.3gppnetwork.org
Peer Address: 10.160.113.136:3868
State: IDLE [TCP]
CPU: 5/0 Task: diamproxy-2
Messages Out/Queued: 0/0
Supported Vendor IDs: None
Admin Status: Enable
DPR Disconnect: N/A
Peer Backoff Timer running:N/A

Peer Hostname: mp2.daldra01.dra.epc.mnc260.mcc310.3gppnetwork.org
Local Hostname: 0003-diamproxy.s6b.IEPCF201.epc.mnc260.mcc310.3gppnetwork.org
Peer Realm: epc.mnc260.mcc310.3gppnetwork.org
Local Realm: epc.mnc260.mcc310.3gppnetwork.org
Peer Address: 10.160.113.136:3868
State: IDLE [TCP]
CPU: 7/0 Task: diamproxy-3
Messages Out/Queued: 0/0
Supported Vendor IDs: None
Admin Status: Enable
DPR Disconnect: N/A
Peer Backoff Timer running:N/A

Peer Hostname: mp2.daldra01.dra.epc.mnc260.mcc310.3gppnetwork.org
Local Hostname: 0004-diamproxy.s6b.IEPCF201.epc.mnc260.mcc310.3gppnetwork.org
Peer Realm: epc.mnc260.mcc310.3gppnetwork.org
Local Realm: epc.mnc260.mcc310.3gppnetwork.org
Peer Address: 10.160.113.136:3868
State: IDLE [TCP]
CPU: 8/0 Task: diamproxy-4

Messages Out/Queued: 0/0
Supported Vendor IDs: None
Admin Status: Enable
DPR Disconnect: N/A
Peer Backoff Timer running:N/A

Peer Hostname: mp2.daldra01.dra.epc.mnc260.mcc310.3gppnetwork.org
Local Hostname: 0005-diamproxy.s6b.IEPCF201.epc.mnc260.mcc310.3gppnetwork.org
Peer Realm: epc.mnc260.mcc310.3gppnetwork.org
Local Realm: epc.mnc260.mcc310.3gppnetwork.org
Peer Address: 10.160.113.136:3868
State: IDLE [TCP]
CPU: 3/0 Task: diamproxy-5
Messages Out/Queued: 0/0
Supported Vendor IDs: None
Admin Status: Enable
DPR Disconnect: N/A
Peer Backoff Timer running:N/A

Peer Hostname: mp2.daldra01.dra.epc.mnc260.mcc310.3gppnetwork.org
Local Hostname: 0006-diamproxy.s6b.IEPCF201.epc.mnc260.mcc310.3gppnetwork.org
Peer Realm: epc.mnc260.mcc310.3gppnetwork.org
Local Realm: epc.mnc260.mcc310.3gppnetwork.org
Peer Address: 10.160.113.136:3868
State: IDLE [TCP]
CPU: 6/0 Task: diamproxy-6
Messages Out/Queued: 0/0
Supported Vendor IDs: None
Admin Status: Enable
DPR Disconnect: N/A
Peer Backoff Timer running:N/A

...

Context: billing Endpoint: credit-control

...

Peer Hostname: ln24.daldra01.dra.epc3.mnc260.mcc310.3gppnetwork.org
Local Hostname: 0001-diamproxy.iepcf201.gy
Peer Realm: nsn-gy
Local Realm: starent.gy.com
Peer Address: 10.160.113.136:3869
Local Address: 10.168.86.151:55584
State: OPEN [TCP]
CPU: 10/0 Task: diamproxy-1
Messages Out/Queued: 0/0
Supported Vendor IDs: 10415
Admin Status: Enable
DPR Disconnect: N/A
Peer Backoff Timer running:N/A

Peers Summary:

Peers in OPEN state: 1404
Peers in CLOSED state: 468
Peers in intermediate state: 0
Total peers matching specified criteria: 1872

aamgrs: ل نودب ددع لاصتال رهظي رمأل اذه نم يداعل جاتنإل انه ،عجرمك

Peers Summary:

Peers in OPEN state: 107

Peers in CLOSED state: 36

Peers in intermediate state: 1

Total peers matching specified criteria: 144

مزحل طاقتل ةومجم

S6B، ةياهن ةطقنل ةلطم رطقلا رئاظن عيمج نأ ويرانيسلا اذه حضوي ،هتشقانم تمت امك نم يأل PCAP ةومجم نأ ينعيم امم ،ةددم فيرعت ليك/وةقابطل تسيل ةلكشملا نأ اذ .اهجالصإو ءاطخأل فاشكتسا ضارغأل بسانم لكشب ةلكشملا لثمت نأ بجي تاقاطلل ةيمهأ رثكأل نم نويس ذئدع ،نعيم Diamproxy لىل عطقف اهتيؤرمت دق ةلكشملا تناك - ةنعيم ةقابطل ديدحت بلطتت عيمجتلا ةيلمع نأل مهم اذهو .ةيلمعلا كليل PCAP طاقتل اذه يف هنأ نم مغرلا لىعو - دحاو طاقتل لالخم نم تاقاطلل عيمج ربع اهليغشت نكمي ال طاقتل يه هاندأ حضوم وه امك ،تاقاطلل عيمج ربع ةلكشملا ةيؤر لعف لاب متي ،ويرانيسلا ةجتانل تانايبل لىلح ةيفيك لوح طاقنل ضعب حيصوت يف ةدعاسم لل ني تاقاطل

(5 و 3) ني تالاعف ني تاقاطل راي تخاو ةقابطل ةلواط لىل رظنل وه ب مايقل بجي عيش لوأ بجي ال يتل ةقابطل ةظحالم لىل ةفاضل اب ،امه لىل طاقتل ةيلمع ليغشت متي اهديدحت

```
[local]IEPCF201# show card table
Friday December 11 17:15:28 UTC 2020
```

Slot	Card Type	Oper State	SPOF	Attach
1: CFC	Control Function Virtual Card	Active	No	
2: CFC	Control Function Virtual Card	Standby	-	
3: FC	4-Port Service Function Virtual Card	Active	No	<=====
4: FC	4-Port Service Function Virtual Card	Standby	-	
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	Active	No	

```
[local]IEPCF201#
```

```
[local]IEPCF201# show session recovery status verbose
Saturday December 12 21:43:11 UTC 2020
```

Session Recovery Status:

Overall Status : Ready For Recovery
Last Status Update : 4 seconds ago

cpu state	----sessmgr---		----aaamgr----		demux active	status
	active	standby	active	standby		
3/0 Active	12	1	12	1	0	Good
4/0 Standby	0	12	0	12	0	Good
5/0 Active	12	1	12	1	0	Good
6/0 Active	12	1	12	1	0	Good
7/0 Active	12	1	12	1	0	Good
8/0 Active	12	1	12	1	0	Good
9/0 Active	0	0	0	0	8	Good (Demux)
10/0 Active	12	1	12	1	0	Good

[local]IEPCF201#

وهة رتوفال قاي س ،ةالجال هذه في ،ءارظنلار طقالا ديحت متي شيح # قاي س دادر تسإ مزلي امك #2.

```

***** show context *****
Sunday December 13 15:14:24 UTC 2020
Context Name      ContextID      State      Description
-----
local             1              Active
billing           2              Active    <=====
calea             3              Active
gi                4              Active
sgw               5              Active

```

،اهي ف PCAP عي مجت متي سي يتل اتا قاطبلل Linux debug shell لي لوخدل لي جتت وه يلاتل ،مهب ةصاخال CLI ةسلج في ،5 و 3 ناطاطبال ،ةالجال هذه في

نيلغشملا مظعمل نكمي ارمأ ءاطخال احي حصت ةقبط لي لوصول سي ل :**ةظحال** ةي في كل اق فو لي عمل/الكه لبا ةصاخال رورملا ةم لكب مه رابخإ متي مل ام هي لوصول ل جتت اهنإ شيح ،ءاطخال احي حصت ةقبط لي لوصول لي جتت دنع رذخال خوت .دادعإل (ASR 5500 وأ ASR 5000 نم DPC وأ PSC) ةقاطبلل ياساسألا ليغشتل ماطن لي لوصول (vPC-DI نم SF) ةمدخال ةفيظو) يره اظال زاغال وأ

```

[local]IEPCF201# cli test password <password>
Saturday December 12 21:43:54 UTC 2020
Warning: Test commands enables internal testing and debugging commands
        USE OF THIS MODE MAY CAUSE SIGNIFICANT SERVICE INTERRUPTION

```

```

[local]IEPCF201#
[local]IEPCF201# debug shell card 3 cpu 0
Saturday December 12 21:44:02 UTC 2020
Last login: Fri Dec 11 19:26:34 +0000 2020 on pts/1 from card1-cpu0.
qvpc-di:card3-cpu0#

```

في طقف رفوتت يتل او (set virtual router) ةصاخال Linux رم اوأ **ةومجم** ليغشتب مق ،نأل نأ ظحال .اقباس ه دادر تسإ متي يذل # قاي س ل ددحي و ،Linux نم صصخملا StarOS رادصإ ريغتت ةبل اظملا

```

qvpc-di:card3-cpu0# setvr 2 bash
bash-2.05b#

```

ناك اذا هنا ظحال .لي امك تامل عمل ما دختساب TCP غي رفت ليغشت نكمي ،ةطقنل هذه دنع .اذه ذفنملا مق ر ما دختسإ بجي في ،GY ل قباسل لاثملا في حضورم وه امك فلتخم ذفنملا مق ر ناو نع نوكي كانه نإ <host ip address> **فيضم** عم تنيع تنك عي طتسي ناو نع فيضم ،اضيأ ما دختساب طاقتلالا فوقوا و ،قئاق د عضبل رمالا ليغشتب مق .طبر ضبق يلع نأ صاخ ريظن مزال ددع ضرع متي ،مزال طاقتلالا مت اذا .Control-C

```

bash-2.05b# tcpdump -i any -s 0 -w /tmp/diameter_SF3.pcap "port 3868"
tcpdump: listening on any
^C
1458 packets received by filter
0 packets dropped by kernel
bash-2.05b#

```

لي فلملا خسنا مئ ،exit رمالا ما دختساب يره اظال هجوملا ةحاسم نم جورخلاب مق ،كلذ دعب يه ASR 5500 ل نوكت يتل او ،ةطشنل ا ةرادإل ةقاطب ةصاخال (ةتقؤملا ةركال) Flash ةركاذا

2. وأ 1، vPC-DI، ل انه ةلحلا يف وأ 6، وأ 5 MIO.

```
bash-2.05b# exit
exit
qvpc-di:card3-cpu0# scp /tmp/diameter_SF3.pcap card1:/flash/sftp/diameter_SF3.pcap
diameter_SF3.pcap          100% 110KB 110.4KB/s   00:00
qvpc-di:card3-cpu0# exit
[local]IEPCF201#
```

لخاد ةدوجوم لئاسو ي مادختساب SFTP مادختساب فللمل دادرتسا نكمي، ةطقنلا كلت دنع /flash/ لئلد لوصولل ةكبشلا.

لئغش تب مق، ةلثملا ةلحانلا نم 3 SF ل هضرع متامل راركت وهو، اضيأ 5 SF رمأو يه اه ال دق ك لذ نأ مغر) لئلحتلل ةنمازتم تاطقل لعل لوصولل تقولا سفن يف نئرتودلا ال (ايرورض نوكي).

```
[local]IEPCF201# cli test password <password>
Saturday December 12 21:43:28 UTC 2020
Warning: Test commands enables internal testing and debugging commands
        USE OF THIS MODE MAY CAUSE SIGNIFICANT SERVICE INTERRUPTION
[local]IEPCF201# debug shell card 5 cpu 0
Saturday December 12 21:44:13 UTC 2020
qvpc-di:card5-cpu0#
qvpc-di:card5-cpu0# setvr 2 bash
bash-2.05b# tcpdump -i any -s 0 -w /tmp/diameter_SF5.pcap "port 3868"
tcpdump: listening on any
^C
1488 packets received by filter
0 packets dropped by kernel
bash-2.05b# exit
exit
qvpc-di:card5-cpu0# scp /tmp/diameter_SF5.pcap card1:/flash/sftp/diameter_SF5.pcap
diameter_SF5.pcap          100% 113KB 112.7KB/s   00:00
qvpc-di:card5-cpu0# exit
[local]IEPCF201#
```

لئلحت PCAP

اقباس ركذامكو. رطقلا لاصتا عاشن ةللمع يف لئصفتلا ناكم دئحت وه انه فدهلاو لئلة بسنلاب CER/CEA ةللاتلا ةوطخلال يف نوكي دق وأ TCP/IP لاصتا يف نوكي نأ نكمي TCP SYN ACK، يقلت متي ناك اذا امو، TCP ماظن لاسرا متي ناك اذا ام نع ثحبا، TCP/IP، لم اوع نم ددع ي مادختساب مزحلا ةلصفت نكمي. ASR نم هلا سرا متي ACK هعبت ي tcp.flags.syn == 1 ةلصفتلا لماع رهظي ةلحلا هذه يفو لئلحتلا يف ةدعاسم لل ةلصفتلا ضرع ةقيرط لئل رظنلاب. ةدحمال ةقابطلا هذهل ةتسللا ءارظنلا ءيمجل SYN لاسرا متي هنأ يف TCP قفدت ءزيم نم دفتساو SYN ةمزح لعل نم يأللا سواملا رزب رقنا، ةافصم ريغ رايخ لئل نم #، TCP ذفنم سفن مدختست يئلا TCP مزح ءيمج عمجت يئلا Wireshark عاشناب موقت يئلا TCP مزحل قفاوتم لدابت كانه ناك اذا ام ةفرعمل TCP قفدت ... ةعباتم لئل.

37	2020-12-12 21:47:52.558999	10.168.86.144	10.160.113.136	59865 → diameter(3868) [SYN] Seq=2247158099 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066648169 TSecr=0 WS=8	Mark/Unmark Packet Ctrl+M	PERM=1 TSval=2066648173 TSecr=0 WS=8
38	2020-12-12 21:47:52.562987	10.168.86.144	10.160.114.136	57213 → diameter(3868) [SYN] Seq=1806187659 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066648173 TSecr=0 WS=8	Ignore/Unignore Packet Ctrl+D	PERM=1 TSval=2066648173 TSecr=0 WS=8
39	2020-12-12 21:47:52.563004	10.168.86.144	10.160.115.136	58262 → diameter(3868) [SYN] Seq=593422692 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066648174 TSecr=0 WS=8	Set/Unset Time Reference Ctrl+T	PERM=1 TSval=2066648174 TSecr=0 WS=8
40	2020-12-12 21:47:52.564748	10.168.86.144	10.162.6.73	43434 → diameter(3868) [SYN] Seq=4111917603 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066648174 TSecr=0 WS=8	Time Shift... Ctrl+Shift+T	PERM=1 TSval=2066648174 TSecr=0 WS=8
41	2020-12-12 21:47:52.564763	10.168.86.144	10.164.57.41	60675 → diameter(3868) [SYN] Seq=249946840 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066648174 TSecr=0 WS=8	Packet Comment... Ctrl+Alt+C	PERM=1 TSval=2066648174 TSecr=0 WS=8
42	2020-12-12 21:47:52.564780	10.168.86.144	10.177.70.201	52347 → diameter(3868) [SYN] Seq=171243962 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066648174 TSecr=0 WS=8	cmd=Device-Watchdog Request(280) fl	0) h2h=2f8efc82 e2e=346e6450
43	2020-12-12 21:47:53.054953	10.198.94.140	10.168.86.150	cmd=Device-Watchdog Answer(280) fl	Edit Resolved Name) h2h=2f8efc82 e2e=346e6450
44	2020-12-12 21:47:53.055284	10.168.86.150	10.198.94.140	diameter(3868) → 54833 [ACK] Seq=2549946840 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066648665 TSecr=0 WS=8	Apply as Filter	val=3172083392 TSecr=2066648665
45	2020-12-12 21:47:53.066953	10.198.94.140	10.168.86.150	cmd=Device-Watchdog Request(280) fl	Prepare as Filter	0) h2h=48b55b22 e2e=3a2163d0
46	2020-12-12 21:47:53.529252	10.165.53.4	10.168.86.150	cmd=Device-Watchdog Answer(280) fl	Conversation Filter) h2h=48b55b22 e2e=3a2163d0
47	2020-12-12 21:47:53.593854	10.168.86.150	10.165.53.4	diameter(3868) → 50976 [ACK] Seq=5459946840 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066649203 TSecr=0 WS=8	Colorize Conversation	a1=3085318983 TSecr=2066649203
48	2020-12-12 21:47:53.595951	10.165.53.4	10.168.86.150	cmd=Device-Watchdog Request(280) fl	SCTP	0) h2h=48ab3727 e2e=1025966d
49	2020-12-12 21:47:54.489954	10.198.94.132	10.168.86.150	cmd=Device-Watchdog Answer(280) fl	Follow	TCP Stream Ctrl+Alt+Shift+T
50	2020-12-12 21:47:54.490996	10.168.86.150	10.198.94.132	cmd=Device-Watchdog Request(280) fl	Copy	UDP Stream Ctrl+Alt+Shift+U
51	2020-12-12 21:47:54.507956	10.198.94.132	10.168.86.150	diameter(3868) → 57098 [ACK] Seq=6459946840 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066648174 TSecr=0 WS=8	Protocol Preferences	TLS Stream Ctrl+Alt+Shift+S
52	2020-12-12 21:47:55.739030	10.168.86.151	10.198.93.88	cmd=Device-Watchdog Answer(280) fl	Decode As...	HTTP Stream Ctrl+Alt+Shift+H
53	2020-12-12 21:47:55.748950	10.198.93.88	10.168.86.151	54596 → diameter(3868) [ACK] Seq=4111917603 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066648174 TSecr=0 WS=8	Show Packet in New Window	HTTP/2 Stream
54	2020-12-12 21:47:55.749724	10.168.86.151	10.198.93.88	cmd=Device-Watchdog Request(280) fl		QUIC Stream
55	2020-12-12 21:47:56.785952	10.165.53.12	10.168.86.150	cmd=Device-Watchdog Answer(280) fl		
56	2020-12-12 21:47:56.786467	10.168.86.150	10.165.53.12	diameter(3868) → 44122 [ACK] Seq=46122422018 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066648174 TSecr=0 WS=8		
57	2020-12-12 21:47:56.800952	10.165.53.12	10.168.86.150	diameter(3868) → 44122 [ACK] Seq=46122422018 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066648174 TSecr=0 WS=8		

نأ لم تحمّل نم ASR نأ دكؤي اذهو، SYN چراخ یرخأ مزح دجوت ال هنأ ظحال ، ويرانيسلا اذه يف ببس هنوك نم ASR ىلع ءاضقلا ىلى يدؤيس امم ، ةباجتسا ي دوعي ال هنك لو SYN لسري متي ال امبر و ، ةلاجال يف كلذ نامض متي ال هنأ نم مغرلا ىلع (لاصتالا دادع يف لشفلا يف اديفم ي چراخال PCAP نوكي ةلاجال هذه يف و ، ةباجتسال طاقسا متي هنأ و ، ةمزلال لاسرا (رثكأ ةلكشملا ليلقت).

tcp.stream eq 7

No.	Time	Source	Destination	Info
37	2020-12-12 21:47:52.558999	10.168.86.144	10.160.113.136	59865 → diameter(3868) [SYN] Seq=2247158099 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066648169 TSecr=0 WS=8

نيوكتلا عم قباطتي ام وهو ، ةيناث 30 لك طمنلا راركت متي هنأ ىلى اضيأ ةراشإ ردجتو ASR ملستسي ال - لاصتالا ةلواجم ةداعإ ةيناث 30 رطقلا ةيانهن ةطقنل ي ضارثالا هسفن كولسلال SF 5 ل PCAP رهظت . حجني ىتح دبألا ىلى ةلواجملا لىعيس يرحألاب هنك لو امامت.

```
context billing
diameter endpoint 3gpp-aaa-s6b
connection timeout 30
connection retry-timeout 30
```

tcp.flags.syn == 1

No.	Time	Source	Destination	Info
37	2020-12-12 21:47:52.558999	10.168.86.144	10.160.113.136	59865 → diameter(3868) [SYN] Seq=2247158099 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066648169 TSecr=0 WS=8
38	2020-12-12 21:47:52.562987	10.168.86.144	10.160.114.136	57213 → diameter(3868) [SYN] Seq=1806187659 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066648173 TSecr=0 WS=8
39	2020-12-12 21:47:52.563004	10.168.86.144	10.160.115.136	58262 → diameter(3868) [SYN] Seq=593422692 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066648174 TSecr=0 WS=8
40	2020-12-12 21:47:52.564748	10.168.86.144	10.162.6.73	43434 → diameter(3868) [SYN] Seq=4111917603 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066648174 TSecr=0 WS=8
41	2020-12-12 21:47:52.564763	10.168.86.144	10.164.57.41	60675 → diameter(3868) [SYN] Seq=249946840 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066648174 TSecr=0 WS=8
42	2020-12-12 21:47:52.564780	10.168.86.144	10.177.70.201	52347 → diameter(3868) [SYN] Seq=171243962 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066648174 TSecr=0 WS=8
133	2020-12-12 21:48:22.592084	10.168.86.144	10.160.113.136	46954 → diameter(3868) [SYN] Seq=1599801985 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066678202 TSecr=0 WS=8
134	2020-12-12 21:48:22.592112	10.168.86.144	10.160.114.136	35751 → diameter(3868) [SYN] Seq=3337865783 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066678202 TSecr=0 WS=8
135	2020-12-12 21:48:22.592129	10.168.86.144	10.160.115.136	43169 → diameter(3868) [SYN] Seq=3026367013 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066678202 TSecr=0 WS=8
136	2020-12-12 21:48:22.592143	10.168.86.144	10.162.6.73	59796 → diameter(3868) [SYN] Seq=1603160447 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066678202 TSecr=0 WS=8
137	2020-12-12 21:48:22.599364	10.168.86.144	10.164.57.41	60677 → diameter(3868) [SYN] Seq=3877471182 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066678209 TSecr=0 WS=8
138	2020-12-12 21:48:22.599396	10.168.86.144	10.177.70.201	50877 → diameter(3868) [SYN] Seq=375168575 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066678209 TSecr=0 WS=8
217	2020-12-12 21:48:52.595089	10.168.86.144	10.160.113.136	47032 → diameter(3868) [SYN] Seq=3396628935 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066708205 TSecr=0 WS=8
218	2020-12-12 21:48:52.595110	10.168.86.144	10.160.114.136	33418 → diameter(3868) [SYN] Seq=1405313703 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066708205 TSecr=0 WS=8
219	2020-12-12 21:48:52.596989	10.168.86.144	10.160.115.136	37717 → diameter(3868) [SYN] Seq=4103832795 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066708207 TSecr=0 WS=8
220	2020-12-12 21:48:52.597006	10.168.86.144	10.162.6.73	43508 → diameter(3868) [SYN] Seq=1142592045 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066708207 TSecr=0 WS=8
221	2020-12-12 21:48:52.597024	10.168.86.144	10.164.57.41	32922 → diameter(3868) [SYN] Seq=1673081762 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066708207 TSecr=0 WS=8
222	2020-12-12 21:48:52.597038	10.168.86.144	10.177.70.201	38623 → diameter(3868) [SYN] Seq=2074222018 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066708207 TSecr=0 WS=8
313	2020-12-12 21:49:22.614018	10.168.86.144	10.160.113.136	37338 → diameter(3868) [SYN] Seq=1371056611 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066738224 TSecr=0 WS=8
314	2020-12-12 21:49:22.614045	10.168.86.144	10.160.114.136	43483 → diameter(3868) [SYN] Seq=4212342380 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066738224 TSecr=0 WS=8
315	2020-12-12 21:49:22.616176	10.168.86.144	10.160.115.136	60092 → diameter(3868) [SYN] Seq=2954594158 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066738226 TSecr=0 WS=8
316	2020-12-12 21:49:22.616196	10.168.86.144	10.162.6.73	34616 → diameter(3868) [SYN] Seq=332280458 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066738226 TSecr=0 WS=8
317	2020-12-12 21:49:22.616211	10.168.86.144	10.164.57.41	52412 → diameter(3868) [SYN] Seq=1830555143 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066738226 TSecr=0 WS=8
318	2020-12-12 21:49:22.616228	10.168.86.144	10.177.70.201	44325 → diameter(3868) [SYN] Seq=2745428018 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066738226 TSecr=0 WS=8
406	2020-12-12 21:49:52.620143	10.168.86.144	10.160.113.136	57729 → diameter(3868) [SYN] Seq=52777398 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066768230 TSecr=0 WS=8
407	2020-12-12 21:49:52.621217	10.168.86.144	10.160.114.136	53024 → diameter(3868) [SYN] Seq=3814405758 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066768231 TSecr=0 WS=8
408	2020-12-12 21:49:52.621235	10.168.86.144	10.160.115.136	53651 → diameter(3868) [SYN] Seq=593445658 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066768231 TSecr=0 WS=8
409	2020-12-12 21:49:52.621248	10.168.86.144	10.162.6.73	57360 → diameter(3868) [SYN] Seq=3087447500 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066768231 TSecr=0 WS=8
410	2020-12-12 21:49:52.625336	10.168.86.144	10.164.57.41	34845 → diameter(3868) [SYN] Seq=560819250 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066768235 TSecr=0 WS=8
411	2020-12-12 21:49:52.625353	10.168.86.144	10.177.70.201	44899 → diameter(3868) [SYN] Seq=2172486101 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066768235 TSecr=0 WS=8
505	2020-12-12 21:50:22.637579	10.168.86.144	10.160.113.136	55966 → diameter(3868) [SYN] Seq=3186446422 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066798247 TSecr=0 WS=8
506	2020-12-12 21:50:22.639702	10.168.86.144	10.160.114.136	39076 → diameter(3868) [SYN] Seq=3286959003 Win=14600 Len=0 MSS=1460 SACK_PERM=1 TSval=2066798249 TSecr=0 WS=8

ديازتي ةلشافلا لاصتالا ددع نأ رطقلا ةدعاق تايئاصح رهظت ، اعم ءايشألا طبر دنع

وهو باسح لاول. ةلواحلل ةءاع ةلهم ءاهت ناول SF/diamproxy ءالءول ءء عم بس انءء لل ءءءم ب
ةلواحلل 72 نوء ةءقء ءالء، ءءلء. ةءنء 30 لء ةلواحلل 36 = ءارءن 6 * ءارءن 6: بس لل
ءءء لل ءارءء لل ءل ءرءن لاول رءق لل ءاءءاء لل ءل ءل ءء ءءءال م نءم و
CLI ل ءل مزل ءء ءءل ءء ءءوم وه ءم ءءقء ءالء 72 = 61056 ءل 60984 م

```
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:39:10 UTC 2020
Connection Timeouts: 60984
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:39:12 UTC 2020
Connection Timeouts: 60984
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:39:14 UTC 2020
Connection Timeouts: 60984
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:39:17 UTC 2020
Connection Timeouts: 60990
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:39:19 UTC 2020
Connection Timeouts: 60990
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:39:21 UTC 2020
Connection Timeouts: 60996
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:39:25 UTC 2020
Connection Timeouts: 61002
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:39:27 UTC 2020
Connection Timeouts: 61002
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:39:29 UTC 2020
Connection Timeouts: 61008
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:39:32 UTC 2020
Connection Timeouts: 61014
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:39:35 UTC 2020
Connection Timeouts: 61014
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:39:37 UTC 2020
Connection Timeouts: 61020
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:39:40 UTC 2020
Connection Timeouts: 61020
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:39:43 UTC 2020
Connection Timeouts: 61020
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:39:45 UTC 2020
Connection Timeouts: 61026
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:39:47 UTC 2020
Connection Timeouts: 61026
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:39:50 UTC 2020
Connection Timeouts: 61038
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:39:56 UTC 2020
Connection Timeouts: 61038
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:39:58 UTC 2020
```

```

Connection Timeouts: 61044
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:40:01 UTC 2020
Connection Timeouts: 61044
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:40:03 UTC 2020
Connection Timeouts: 61050
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:40:05 UTC 2020
Connection Timeouts: 61056
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:40:07 UTC 2020
Connection Timeouts: 61056
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:40:09 UTC 2020
Connection Timeouts: 61056
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:40:12 UTC 2020
Connection Timeouts: 61056
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:40:14 UTC 2020
Connection Timeouts: 61056
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:40:16 UTC 2020
Connection Timeouts: 61062
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:40:18 UTC 2020
Connection Timeouts: 61062
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:40:20 UTC 2020
Connection Timeouts: 61068
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:40:22 UTC 2020
Connection Timeouts: 61074
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:40:25 UTC 2020
Connection Timeouts: 61074
[local]IEPCF201# show diameter statistics proxy | grep "Connection Timeouts"
Friday December 11 20:40:27 UTC 2020
Connection Timeouts: 61074
[local]IEPCF201#

```

إلى لصي ال هنأ تبثي امم، هفات (رطقال نارقأ عيمج ربع) CER/CEAs ددع نأ اضيأ طحال
 إلى لصي ال هنأ تبثي امم، هفات (رطقال نارقأ عيمج ربع) CER/CEAs ددع نأ اضيأ طحال
 TCP/IP دادعإ قلكشم هنأ ينعي امم، مزحلل هذه لدابت اهي لواحي يتلأ ةطقنلل.

```

[local]IEPCF201# show diameter statistics proxy
Friday December 11 20:57:09 UTC 2020

```

...

```

Capabilities Exchange Requests and Answers statistics:
Connection CER sent: 109
Connection CER send errors: 0
CERs received: 0
Connection CER create failures: 0
CEAs received: 108
CEA AVPs unknown: 0
CEA Application ID mismatch: 0
Read CEA Messages: 108
Read CEA Messages Unexpected: 0
Read CEA Missing: 0
Read CEA Negotiation Failure: 0
Read CER Messages: 0
Read CER Messages Unexpected: 0
Read CER Missing: 0

```

ىلإ دوعي "قالغإلأة لآح" ي ف "نارقألأ" نإف ، ليمعلا ةطساوب ةلكشملا لآ دعب هنا اريخأ طحال
جأرألأ لماك ضرعلا رطق ءارظن ي ف يلحملا ناوئعلا لآقح رهظي ورفصلأ

```
Peer Hostname: mpl.daldra01.dra.epc.mnc260.mcc310.3gppnetwork.org
Local Hostname: 0001-diamproxy.s6b.IEPCF201.epc.mnc260.mcc310.3gppnetwork.org
Peer Realm: epc.mnc260.mcc310.3gppnetwork.org
Local Realm: epc.mnc260.mcc310.3gppnetwork.org
Peer Address: 10.160.113.133:3868
Local Address: 10.168.86.144:32852
State: OPEN [TCP]
CPU: 10/0                               Task: diamproxy-1
Messages Out/Queued: 0/0
Supported Vendor IDs: None
Admin Status: Enable
DPR Disconnect: N/A
Peer Backoff Timer running:N/A
```

Peers Summary:

```
Peers in OPEN state: 144
Peers in CLOSED state: 0
Peers in intermediate state: 0
Total peers matching specified criteria: 144
```

[local]IEPCF101#

ةمچرتل هذه ل و ح

ةلأل تاي نقتل ن م ة و مچ م ادخت ساب دن تسم ل ا اذ ه Cisco ت مچرت
م ل ا ل ا اء ن ا ع مچ ي ف ن ي م دخت س م ل ل م عد ي و ت ح م م ي دقت ل ة ي ر ش ب ل و
ا م ك ة ق ي ق د ن و ك ت ن ل ة ي ل ا ة مچرت ل ض ف ا ن ا ة ظ ح ا ل م ي ج ر ي . ة ص ا خ ل ا م ه ت غ ل ب
Cisco ي ل خ ت . ف ر ت ح م مچرت م ا ه م د ق ي ي ت ل ا ة ي ف ا ر ت ح ا ل ا ة مچرت ل ا ع م ل ا ح ل ا و ه
ي ل ا م اء ا د ع و ج ر ل ا ب ي ص و ت و ت ا مچرت ل ا ه ذ ه ة ق د ن ع ا ه ت ي ل و ئ س م Cisco
Systems (ر ف و ت م ط ب ا ر ل ا) ي ل ص ا ل ا ي ز ي ل ج ن ا ل ا دن ت س م ل ا