

OsmoSGSN - Bug #3937

lu: verify handling of GMM Service Request (data) when no PDP Context present.

04/16/2019 06:24 PM - lynxis

Status: In Progress	Start date: 04/16/2019
Priority: Normal	Due date:
Assignee:	% Done: 0%
Category: lu interface	
Target version:	
Spec Reference: TS 24.008	
Description What should the SGSN answer to GMM Service Request (type=data) when no PDP Context are active? If there would be PDP Context, it should activate RAB Assignment Request to the RNC. Should it ask the UE for the PDP Context Status and invalidate unknown PDP Contexts? Should it sent GMM Service Reject?	
Related issues: Related to OsmoSGSN - Support #3920: PCAPs files of 3G PS for Osmocom network... In Progress 04/12/2019	

History

#1 - 04/16/2019 06:57 PM - lynxis

- Related to Support #3920: PCAPs files of 3G PS for Osmocom network and Commercial one added

#2 - 04/18/2019 02:26 PM - efistokl

#3 - 04/23/2019 10:54 AM - efistokl

lynxis wrote:

What should the SGSN answer to GMM Service Request (type=data) when no PDP Context are active?
Should it sent GMM Service Reject?

Yes, GMM Service Reject with cause # 40 (No PDP Context) works fine.

The problem is that sometimes Osmo-SGSN "hard-drops" PDP context - deletes it from itself and from GGSN but it doesn't send Deactivate PDP Context to the phone. So, the phone thinks that the PDP context is still active and doesn't send Activate PDP Context requests to the SGSN. I will post a patch in a moment.

#4 - 04/23/2019 12:33 PM - efistokl

Posted a patch here: <https://gerrit.osmocom.org/#/c/osmo-sgsn/+13744/>

Attaching traces and logs for the patch above.

GTP packets between 2196-2218 are related to "hard-dropping" PDP context.

Packet 2311 - Service Reject which forces MS to reset its PDP contexts. (3GPP TS 24.008 Section 4.7.13.4 Service request procedure not accepted by the network. Cause # 40.).

Description:

10.0.2.52: femtocell nano3g ip.access S8
10.0.2.51: Osmocom network (without HLR and GGSN)
10.0.1.123 or 192.168.14.16: GGSN
172.48.1.5: HLR

#5 - 04/23/2019 12:36 PM - efistokl

- File sgsn-change-13744.zip added

#6 - 04/24/2019 08:25 AM - laforge

- Tags set to TTCN3

#7 - 04/25/2019 04:21 PM - efistokl

[lynxis](https://gerrit.osmocom.org/#/c/osmo-sgsn/+13744/) may I ask you for a review or your opinion on this solution if you have time for this? <https://gerrit.osmocom.org/#/c/osmo-sgsn/+13744/>

#8 - 04/25/2019 07:49 PM - lynxis

[efistokl](#) thanks for your patch! Comments are in gerrit.

#9 - 05/12/2019 01:14 PM - efistokl

- Status changed from New to In Progress

lynxis wrote:

[efistokl](#) thanks for your patch! Comments are in gerrit.

Shall we mark it as "Resolved"? The patch <https://gerrit.osmocom.org/#/c/osmo-sgsn/+13744/> is merged.

#10 - 05/21/2019 10:28 AM - manatails

- File before.txt added

- File after.txt added

Some phones like iPhone 4 is unable to open data connection after this patch.

Attached are the logs from osmo-sgsn before and after the patch.

Files

sgsn-change-13744.zip	297 KB	04/23/2019	efistokl
before.txt	8.27 KB	05/21/2019	manatails
after.txt	11 KB	05/21/2019	manatails