

OsmoSGSN - Feature #3373

Support for SNS auto-configuration (SIZE / SNS-CONFIG procedure)

07/01/2018 05:18 PM - laforge

Status: Stalled	Start date: 07/01/2018
Priority: Normal	Due date:
Assignee: laforge	% Done: 60%
Category:	
Target version:	
Spec Reference:	
Description 3GPP TS 48.016 Section 6.2 specifies the "IP Sub-Network Service Protocol" (SNS), which can be used to auto-configure the NS-VCs and their IP addresses/ports between one NSE and the SGSN. We don't implement this so far, as the spec states that this is an optional protocol and that NS-VCs may also be configured statically.	
Related issues:	
Related to OsmoPCU - Feature #3372: Support for SNS auto-configuration (SIZE ...	Resolved 07/01/2018
Related to libosmocore - Bug #3388: NS-RESET / NS-UNBLOCK / NS-BLOCK are not ...	New 07/06/2018
Related to libosmocore - Feature #3617: support routing control and user plan...	Resolved 10/02/2018

History

#1 - 07/01/2018 05:22 PM - laforge

- Related to Feature #3372: Support for SNS auto-configuration (SIZE / SNS-CONFIG procedure) added

#2 - 07/05/2018 12:39 AM - laforge

- Status changed from New to In Progress

- % Done changed from 0 to 60

#3 - 07/05/2018 01:20 AM - laforge

- File 20180705-gprs-sns.pcap added

there's an early/experimental implementation available in the laforge/gb-sns branches of libosmocore.git and osmo-pcu.git.

When running against PCU_Tests.ttcn from the laforge/gb-sns branch of osmo-ttcn3-hacks.git, it produces a full SNS handshake as can be seen in the attached pcap file.

The code needs some clean-up. The pre-existing libosmogb API doesn't really distinguish between NS-Entities (NSE) and NS-VirtualConnections (NSVC). In order to properly support this, the following sequence of events should be considered:

- NS Instance with NS-Entity is created
- SNS handshake is performed
- NS-VCs are created from SNS handshake result
- NS-RESET procedure is initiated for each NS-VC

Right now it's inverted:

- NS Instance is created
- NS-VC is created
- SNS handshake is performed, result ignored
- NS-RESET procedure is initiated

#4 - 07/05/2018 08:12 PM - laforge

- Status changed from In Progress to Stalled

#5 - 07/06/2018 04:11 PM - laforge

- Related to Bug #3388: NS-RESET / NS-UNBLOCK / NS-BLOCK are not specified over IP/UDP added

#6 - 08/08/2018 02:26 PM - laforge

#7 - 08/14/2018 07:59 PM - shawnjasper

#8 - 10/02/2018 05:10 PM - laforge

- Related to Feature #3617: support routing control and user plane over different NS links added

Files

20180705-gprs-sns.pcap	1.19 KB	07/05/2018	laforge
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