

OsmoSGSN - Feature #1956

UMTS AKA support in OsmoSGSN

02/20/2017 01:33 PM - neels

Status: Closed	Start date: 02/20/2017
Priority: Normal	Due date:
Assignee: neels	% Done: 100%
Category:	
Target version:	
Spec Reference:	
Description Implement UMTS authentication for OsmoSGSN. Talk to OsmoHLR to fetch UMTS auth tuples with AUTN and RES and do AUTS sequence resync (think milenage).	
Related issues:	
Related to OsmoNITB - Feature #1593: UMTS AKA support	Closed 02/23/2016
Related to OsmoSGSN - Feature #1959: SGSN: write regression tests for Authent...	Closed 02/24/2017

History

#1 - 02/20/2017 01:35 PM - neels

- Status changed from New to In Progress
- Assignee set to neels
- % Done changed from 0 to 70

Mostly done in <https://gerrit.osmocom.org/1683> but AUTS resync is still in progress.

#2 - 02/20/2017 01:35 PM - neels

- Related to Feature #1593: UMTS AKA support added

#3 - 02/21/2017 11:22 AM - neels

AUTS resync implemented, but not tested yet

#4 - 02/21/2017 01:00 PM - neels

Note: the System information Type 13 indicates whether the network is capable of R99.
3GPP TS 44.018 9.1.43a 'System information Type 13' and 10.5.2.37b 'SI 13 Rest Octets'

```
SGSNR, SGSN Release (1 bit field)
0 SGSN is Release '98 or older
1 SGSN is Release '99 onwards
```

Looking at our code, we apparently already send this as "R99":
openbsc/openbsc/src/libbsc/rest_octets.c

```
/* claim our SGSN is compatible with Release 99, as EDGE and EGPRS
 * was only added in this Release */
bitvec_set_bit(&bv, 1);
```

confirmed by wireshark trace.

So nothing to do here.

#5 - 02/24/2017 01:14 PM - neels

- Related to Feature #1959: SGSN: write regression tests for Authentication added

#6 - 02/24/2017 01:14 PM - neels

- *Status changed from In Progress to Resolved*

- *% Done changed from 70 to 100*

UMTS AKA is now fully implemented in the SGSN <https://gerrit.osmocom.org/1683>.

Tested and works with real equipment (R99 MS in GSM doing full UMTS AKA).

It could also use some unit testing: [#1959](#)

#7 - 02/28/2017 05:32 PM - laforge

- *Status changed from Resolved to Closed*