

## OsmoNITB - Bug #2691

### Old TMSI paged after LU

11/29/2017 09:37 AM - zecke

|   |                               |
|---|-------------------------------|
| <b>Status:</b> Feedback   | <b>Start date:</b> 11/29/2017 |
| <b>Priority:</b> Normal   | <b>Due date:</b>              |
| <b>Assignee:</b>  | <b>% Done:</b> 0%             |
| <b>Category:</b>  |                               |
| <b>Target version:</b>  |                               |
| <b>Spec Reference:</b>  |                               |
| <b>Description</b>  |                               |
| While working on the scripting of "mobile" I noticed a funny paging issue.  |                               |
| <ul style="list-style-type: none"><li>• Do UL from mobile</li><li>• Send SMS from NITB and start paging to mobile</li><li>• "shutdown" mobile</li><li>• "no shutdown" mobile<ul style="list-style-type: none"><li>◦ UL happens</li><li>◦ TMSI reallocation</li></ul></li><li>• NITB will continue paging the old TMSI</li></ul> |                               |
| The issue got introduced in 6d804b1a7e375213cb4b3e437c2b9b8c68872164 when separating the subscribers...   |                               |

#### History

##### #1 - 11/29/2017 01:44 PM - neels

- Status changed from New to Feedback

- Assignee set to zecke

UL means LU (Location Update) I presume.

The issue got introduced in 6d804b1a7e375213cb4b3e437c2b9b8c68872164 when separating the subscribers...

ugh, my bad.

I wonder though why it happens, because

```
subscr_paging_dispatch() {
    bsub = bsc_subscr_find_or_create_by_imsi(net->bsc_subscribers,
                                           subscr->imsi);
    bsub->tmsi = subscr->tmsi;
}
```

So IIUC it is the paging that is ongoing from before the LU and has not received a response yet. Then when the TMSI is reallocated, the old paging continues. i.e. we want to abort any ongoing pagings on a LU for a subscriber?

For the case of SMS, it should actually retry to page again some time later, with the correct TMSI, right?

##### #2 - 11/29/2017 02:50 PM - zecke

- Subject changed from Old TMSI paged after UL to Old TMSI paged after LU

##### #3 - 11/29/2017 03:02 PM - zecke

Yes LU (in core network it is UL..).

Right when paging begins the TMSI is correct, during paging the TMSI is changing (and not updated). So there are three "issues"

- gsm\_subscr changes should propagate to bsc\_subscr
- our default time to page is unusual large (so a retry of SMS sending might take "a" bit)
- once we have the RF channel for LU.. we could send SMS after the LU accept (or wait until the TMSI reallocation complete)

I have to figure out what of this applies to osmo-msc and we can solve it there.

**#4 - 11/29/2017 03:09 PM - neels**

UL vs LU: in our code it's called lu / location updating all the way to the HLR :)

zecke wrote:

- gsm\_subscr changes should propagate to bsc\_subscr

That's a problem in the separate MSC/BSC setup by definition. We cannot change the TMSI in the middle of a paging. The proper way in terms of A interface would be to stop paging and then start a new paging.

- our default time to page is unusual large (so a retry of SMS sending might take "a" bit)

On 33c3 we still had to increase that to get a successful paging response..... maybe something is wrong there?

- once we have the RF channel for LU.. we could send SMS after the LU accept (or wait until the TMSI reallocation complete)

I have to figure out what of this applies to osmo-msc and we can solve it there.

So you're specifically concerned with osmo-nitb here? I guess it still makes sense to think of it in terms of what the A interface is defined to do.

**#5 - 05/17/2018 11:47 AM - laforge**

- Assignee deleted (zecke)