

libosmocore - Bug #2586

fix timer duration calculations

10/20/2017 10:43 AM - msuraev

Status: Stalled	Start date: 10/20/2017
Priority: Normal	Due date:
Assignee: stsp	% Done: 20%
Category:	
Target version:	
Spec Reference:	
Description The code in gprs_ns.c uses nsvc_timer_elapsed_ms() which relies on osmo_gettimeofday() wrapper around gettimeofday() which is affected by discontinuous jumps in the system time (e.g., if the system administrator manually changes the system time). It's better to use monotonic clock via clock_gettime(CLOCK_MONOTONIC, ..) but this would require replacing "struct timeval" with "struct timespec" for timer_started in "struct gprs_nsvc". I'm not aware of any external users for this field but nevertheless we should properly change API/ABI version when doing so. On a related note: we should carefully check all the uses of osmo_gettimeofday() for elapsed time calculations and replace it with monotonic clock.	
Related issues: Related to OsmoPCU - Bug #2407: N3101 not implemented in OsmoPCU Closed 07/29/2017	

History

#1 - 10/20/2017 11:01 AM - laforge

- Assignee set to msuraev

#2 - 11/02/2017 04:48 PM - msuraev

In commit 1fa8dfbaf42a4341255b3bbef3c8a3c574e8c477 corresponding explanation have been added to osmo_gettimeofday().

#3 - 12/01/2017 05:06 PM - msuraev

- Subject changed from fix NS timer calculations to fix timer duration calculations

- Status changed from New to In Progress

The problem is more widespread than initially anticipated: BSSGP and osmo_timer_* also use non-monotonic osmo_gettimeofday() for duration calculations.

#4 - 12/04/2017 11:03 AM - msuraev

- % Done changed from 0 to 10

#5 - 12/04/2017 11:52 AM - msuraev

- Related to Bug #2407: N3101 not implemented in OsmoPCU added

#6 - 01/03/2018 04:30 PM - msuraev

- % Done changed from 10 to 20

The groundwork is in gerrit 5103, fix for NS in 5104, fix for BSSGP in 5629, cleanup in 5631. This bigger task of using monotonic clock for osmo_timer_*(*) still remains to be implemented.

#7 - 01/03/2018 04:31 PM - msuraev

- *Description updated*

#8 - 01/16/2018 06:26 PM - msuraev

- *Status changed from In Progress to Stalled*

#9 - 03/01/2018 11:17 PM - laforge

- *Assignee deleted (msuraev)*

#10 - 05/09/2018 10:04 AM - laforge

- *Assignee set to stsp*