**OsmoBTS - Bug #4801**

**BTS_Tests.TC_tch_sign_l2_fill_frame_dtxd fails**

10/11/2020 07:52 PM - laforge

<table>
<thead>
<tr>
<th>Status:</th>
<th>Stalled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority:</td>
<td>Normal</td>
</tr>
<tr>
<td>Assignee:</td>
<td>fixeria</td>
</tr>
<tr>
<td>Category:</td>
<td>osmo-bts-trx</td>
</tr>
</tbody>
</table>

**Description**

The tests fail with the statement

```
TC_tch_sign_l2_fill_frame_dtxd(6)@nataraja: received only 2+0 (SACCH+other) out of 3 expected fill frames
MTC@nataraja: Test case TC_tch_sign_l2_fill_frame_dtxd finished. Verdict: fail reason: "BTS_Tests.ttcn:6675 : Not enough fill frames received"
```

So it seems like the SACCH in downlink is received, but the fill frames that should be sent by the related code in osmo-bts (https://gerrit.osmocom.org/c/osmo-bts/+/10415) are either not sent, or somehow lost, or not detected by the test case.

**Related issues:**

- Related to OsmoBTS - Bug #1950: LC15: BTS does not send L2 fill frame
  - Resolved 02/13/2017
- Related to OsmoBTS - Bug #5474: osmo-bts-trx: DTXd support not implemented
  - New 03/02/2022

**History**

- **#1 - 10/11/2020 07:52 PM - laforge**
  - Related to Bug #1950: LC15: BTS does not send L2 fill frame added

- **#2 - 10/24/2020 04:43 PM - fixeria**
  - Status changed from New to In Progress

  So it seems like the SACCH in downlink is received, but the fill frames that should be sent by the related code in osmo-bts (https://gerrit.osmocom.org/c/osmo-bts/+/10415) are either not sent, or somehow lost, or not detected by the test case.

  That commit has been reverted (see lbd8c0899451ae3c17bc07d4e112e32b4897405c9). It looks like another implementation was merged.

  See also https://osmocom.org/issues/1950#note-14

  Updated by stsp about 2 years ago:

  These changes are currently stalled because the foundations for testing DTX mode are missing from trxcon.

  We're checking DTX frames on Downlink, so trxcon only needs to decode Downlink frames. I don't think anything is missing.

  My DTX TTCN3 tests are currently unable to deal with frame numbers in a reliable way.

  A hardware setup might serve as a workaround but AFAIK won't result in automated tests which can be run in our current jenkins setup.

  I checked the test case implementation, and indeed it's not handling frame numbers correctly (especially the case where the frame number wraps). In general, the code is messy and hard to read. I think we need to clean it up first, I already have some patches.

- **#3 - 10/26/2020 08:46 AM - fixeria**

  - % Done changed from 0 to 10

  https://gerrit.osmocom.org/c/osmo-ttcn3-hacks/+/20884 BTS_Tests/DTX: get rid of f_g_chan_is_[tchf,tchh,sdcch4,sdcch8]

  https://gerrit.osmocom.org/c/osmo-ttcn3-hacks/+/20887 BTS_Tests/DTX: SACCH has nothing to do with fill frames

  https://gerrit.osmocom.org/c/osmo-ttcn3-hacks/+/20888 BTS_Tests/DTX: provide more details in failed verdict message

  https://gerrit.osmocom.org/c/osmo-ttcn3-hacks/+/20889 BTS_Tests/DTX: remove redundant RSL channel number check
With this patch set applied, it reveals that in TCH/F DTX mode, osmo-bts-trx does not send any fill frames at all.

#4 - 10/26/2020 08:52 AM - fixeria
- Checklist item [ ] Add a test case for TCH/F in speech mode (DTX enabled) added
- Checklist item [ ] Add a test case for TCH/H in speech mode (DTX enabled) added
- Checklist item [ ] Do not test SDCCH/8 in TC_tch_sign_i2_fill_frame[_dtxd] added
- Checklist item [ ] Fix TDMA frame number counting added

Moreover, we don't cover TCH/F and TCH/H in speech mode. DTX is also allowed for the later.

#5 - 11/09/2020 07:58 AM - fixeria
- Status changed from In Progress to Stalled

#6 - 03/02/2022 05:06 PM - pespin
- Related to Bug #5474: osmo-bts-trx: DTXd support not implemented added