

OsmoBSC - Bug #3475

neels/inter_bsc_ho branch for osmo-bsc 2TRX configured but OSMO-BSC only uses the first TRX configuration

08/20/2018 01:09 AM - ron.menez@entropysolution.com

| | | | |
|------------------------|----------|--------------------|------------|
| Status: | Resolved | Start date: | 08/20/2018 |
| Priority: | High | Due date: | |
| Assignee: | pespin | % Done: | 100% |
| Category: | | | |
| Target version: | | | |
| Spec Reference: | | | |

Description

We tried to use the neels/inter_bsc_ho branch for osmo-bsc to test if this issue for SDCCH not being release if "Radio Link Failure" is detected in osmo-bsc and an equivalent error of "Sending Connection Failure: cause = 0x01" in osmo-bts-trx.

In this branch, the SDCCH issue is resolved but even a 2TRX configuration is used by our setup, OSMO-BSC only uses the first TRX configuration.

Kindly see logs below for your reference:

OSMO-BSC:

```
1. /usr/local/osmo-bsc/src/osmo-bsc/osmo-bsc -c /root/demo/osmo-bsc.cfg
logging level cc (everything|debug|info|notice|error|fatal)
logging level mgcp (everything|debug|info|notice|error|fatal)
<001f> osmo_ss7.c:1270 0: ASP Restart for server not implemented yet!
[0;m% Ignoring deprecated logging level everything
<0013> telnet_interface.c:104 telnet at 127.0.0.1 4242
[0;m<0015> input/ipaccess.c:846 enabling ipaccess BSC mode on 0.0.0.0 with OML 3002 and RSL 3003 TCP ports
[0;m<001a> control_if.c:887 CTRL at 127.0.0.1 4249
[0;m<0007> osmo_bsc_sigtran.c:466 Initializing SCCP connection to MSC msc-0
[0;m<0007> osmo_bsc_sigtran.c:476 CS7 Instance identifier, A-Interface: 0
[0;m<0020> sccp_user.c:397 msc-0: Using SS7 instance 0, pc:0.23.3
[0;m<0020> sccp_user.c:421 msc-0: Using AS instance MSC_Test
[0;m<0020> sccp_user.c:426 msc-0: Creating default route
[0;m<0020> sccp_user.c:481 msc-0: Using ASP instance Huawei_MSC_Test
[0;m<0020> sccp_user.c:484 msc-0: Creating SCCP instance
[0;m<0007> osmo_bsc_sigtran.c:519 (msc-0) A-interface: local (BSC) SCCP address: RI=SSN_PC,PC=0.23.3,SSN=BSSAP
[0;m<0007> osmo_bsc_sigtran.c:521 (msc-0) A-interface: remote (MSC) SCCP address: RI=SSN_PC,PC=0.23.1,SSN=BSSAP
[0;m<0007> a_reset.c:106 A-RESET[0xce7480]{DISC}: (re)sending BSSMAP RESET message...
[0;m<0007> osmo_bsc_sigtran.c:92 Sending RESET to MSC: RI=SSN_PC,PC=0.23.1,SSN=BSSAP
[0;m<001f> m3ua.c:507 XUA_AS(MSC_Test)[0xcdb9d0]{AS_DOWN}: Event AS-TRANSFER.req not permitted
[0;m<0007> a_reset.c:106 A-RESET[0xce7480]{DISC}: (re)sending BSSMAP RESET message...
[0;m<0007> osmo_bsc_sigtran.c:92 Sending RESET to MSC: RI=SSN_PC,PC=0.23.1,SSN=BSSAP
[0;m<001f> m3ua.c:507 XUA_AS(MSC_Test)[0xcdb9d0]{AS_DOWN}: Event AS-TRANSFER.req not permitted
[0;m<0007> a_reset.c:106 A-RESET[0xce7480]{DISC}: (re)sending BSSMAP RESET message...
[0;m<0007> osmo_bsc_sigtran.c:92 Sending RESET to MSC: RI=SSN_PC,PC=0.23.1,SSN=BSSAP
[0;m<001f> m3ua.c:507 XUA_AS(MSC_Test)[0xcdb9d0]{AS_INACTIVE}: Event AS-TRANSFER.req not permitted
[0;m<0022> m3ua.c:634 asp-Huawei_MSC_Test: Received NOTIFY Type State Change:AS Inactive ()
[0;m<001f> xua_default_lm_fsm.c:353 xua_default_lm(Huawei_MSC_Test)[0xce6de0]{ACTIVE}: Ignoring primitive
M-ASP_ACTIVE.confirm
[0;m<0022> m3ua.c:634 asp-Huawei_MSC_Test: Received NOTIFY Type State Change:AS Active ()
[0;m<0007> a_reset.c:106 A-RESET[0xce7480]{DISC}: (re)sending BSSMAP RESET message...
[0;m<0007> osmo_bsc_sigtran.c:92 Sending RESET to MSC: RI=SSN_PC,PC=0.23.1,SSN=BSSAP
[0;m<0007> osmo_bsc_bssap.c:58 RESET ACK from MSC: RI=SSN_PC,PC=0.23.1,SSN=BSSAP
[0;m<0007> a_reset.c:74 A-RESET[0xce7480]{DISC}: SIGTRAN connection succeeded.
[0;m<0015> input/ipa.c:265 accept()ed new link from 192.168.1.170 to port 3002
[0;m[1;36m<0004> abis_nm.c:499 BTS0 feature 'EGPRS' reported via OML does not match statically set feature: 0 != 1. Please
fix.
[0;m[1;36m<0004> abis_nm.c:499 BTS0 feature 'OML Alerts' reported via OML does not match statically set feature: 1 != 0.
Please fix.
```

```

[0;m[1;36m<0004> abis_nm.c:499 BTS0 feature 'Fullrate speech V1' reported via OML does not match statically set feature: 1
!= 0. Please fix.
[0;m[1;36m<0004> abis_nm.c:499 BTS0 feature 'Halfrate speech V1' reported via OML does not match statically set feature: 1
!= 0. Please fix.
[0;m[1;36m<0004> abis_nm.c:499 BTS0 feature 'Fullrate speech EFR' reported via OML does not match statically set feature: 1
!= 0. Please fix.
[0;m[1;36m<0004> abis_nm.c:499 BTS0 feature 'Fullrate speech AMR' reported via OML does not match statically set feature:
1 != 0. Please fix.
[0;m[1;36m<0004> abis_nm.c:499 BTS0 feature 'Halfrate speech AMR' reported via OML does not match statically set feature:
1 != 0. Please fix.
[0;m[1;36m<0004> abis_nm.c:566 OC=BTS INST=(00,ff,ff): BTS0: ARI reported sw[0/2]: osmobts is 0.8.1.35-6575f0
[0;m[1;36m<0004> abis_nm.c:438 BTS0 reported variant: omso-bts-trx
[0;m[1;36m<0004> abis_nm.c:460 BTS0 Attribute Manufacturer Dependent State is unreported
[0;m[1;36m<0004> abis_nm.c:566 OC=BTS INST=(00,ff,ff): BTS0: ARI reported sw[0/1]: TRX_PHY_VERSION is Unknown
[0;m[1;36m<0004> abis_nm.c:460 BTS0 Attribute Manufacturer Dependent State is unreported
[0;m[1;36m<0004> abis_nm.c:566 OC=BTS INST=(00,ff,ff): BTS0: ARI reported sw[0/1]: TRX_PHY_VERSION is Unknown
[0;m[1;36m<0004> abis_nm.c:2827 IPA RSL CONNECT IP=0.0.0.0 PORT=3003 STREAM=0x00
[0;m[1;36m<0004> abis_nm.c:2827 IPA RSL CONNECT IP=0.0.0.0 PORT=3003 STREAM=0x00
[0;m<0015> input/ipa.c:265 accept()ed new link from 192.168.1.170 to port 3003
[0;m[1;35m<0003> osmo_bsc_main.c:282 bootstrapping RSL for BTS/TRX (0/0) on ARFCN 111 using MCC-MNC 101-01
LAC=20259 CID=6966 BSIC=63
[0;m<0015> input/ipa.c:265 accept()ed new link from 192.168.1.170 to port 3003
[0;m[1;35m<0003> osmo_bsc_main.c:282 bootstrapping RSL for BTS/TRX (0/1) on ARFCN 13 using MCC-MNC 101-01
LAC=20259 CID=6966 BSIC=63
[0;m[1;31m<0011> bts_ipaccess_nanobts.c:314 timeslot(0-0-0-CCCH_SDCCH4)[0xce0220]{UNUSED}: Event
TS_EV_OML_READY not permitted
[0;m[1;31m<0011> bts_ipaccess_nanobts.c:314 timeslot(0-0-1-SDCCH8)[0xce0650]{UNUSED}: Event TS_EV_OML_READY
not permitted
[0;m[1;31m<0011> bts_ipaccess_nanobts.c:314 timeslot(0-0-2-TCH_F)[0xce0c00]{UNUSED}: Event TS_EV_OML_READY not
permitted
[0;m[1;31m<0011> bts_ipaccess_nanobts.c:314 timeslot(0-0-3-TCH_F)[0xce11b0]{UNUSED}: Event TS_EV_OML_READY not
permitted
[0;m[1;31m<0011> bts_ipaccess_nanobts.c:314 timeslot(0-0-4-TCH_F)[0xce1760]{UNUSED}: Event TS_EV_OML_READY not
permitted
[0;m[1;31m<0011> bts_ipaccess_nanobts.c:314 timeslot(0-0-5-TCH_F)[0xce1d10]{UNUSED}: Event TS_EV_OML_READY not
permitted
[0;m[1;31m<0011> bts_ipaccess_nanobts.c:314 timeslot(0-0-6-TCH_F)[0xce22c0]{UNUSED}: Event TS_EV_OML_READY not
permitted
[0;m[1;31m<0011> bts_ipaccess_nanobts.c:314 timeslot(0-0-7-TCH_F)[0xce2870]{UNUSED}: Event TS_EV_OML_READY not
permitted
[0;m
[1;35m<0003> abis_rsl.c:1364 (bts=0) CHAN RQD: reason: other (ra=0xfe, neci=0x00, chreq_reason=0x04)
[0;m[1;32m<0010> lchan_fsm.c:76 lchan(0-0-0-CCCH_SDCCH4-0)[0xce7f70]{WAIT_RLL_RTP_ESTABLISH}: (type=SDCCH)
lchan allocation failed in state WAIT_RLL_RTP_ESTABLISH: Timeout
[0;m[1;32m<0010> lchan_fsm.c:95 lchan(0-0-0-CCCH_SDCCH4-0)[0xce7f70]{WAIT_RLL_RTP_ESTABLISH}: (type=SDCCH)
Tx Immediate Assignment Reject (lchan allocation failed in state WAIT_RLL_RTP_ESTABLISH: Timeout)
[0;m[1;35m<0003> abis_rsl.c:1364 (bts=0) CHAN RQD: reason: Location updating (ra=0x09, neci=0x00, chreq_reason=0x03)
[0;m<0007> fsm.c:299 SUBSCR_CONN[0xce7910]{INIT}: Allocated
[0;m<000f> fsm.c:299 LCLS[0xce7a40]{NO_LCLS}: Allocated
[0;m<000f> fsm.c:329 LCLS[0xce7a40]{NO_LCLS}: is child of SUBSCR_CONN[0xce7910]

```

OSMO-BSC CLI:

OsmoBSC# show network

BSC is on MCC-MNC 101-01 and has 1 BTS

Encryption: A5/0

NECI (TCH/H): 0

Use TCH for Paging any: 0

Handover: Off

Current Channel Load:

CCCH+SDCCH4: 25% (1/4)

TCH/F: 0% (0/6)

SDCCH8: 0% (0/8)

Last RF Command:

Last RF Lock Command:

OsmoBSC# show run

```
Current configuration:
!
!
bts 0
type sysmobts
band GSM900
cell_identity 6966
location_area_code 20259
base_station_id_code 63
ms max power 15
cell reselection hysteresis 4
rxlev access min 0
radio-link-timeout 32
channel allocator ascending
rach tx integer 9
rach max transmission 7
channel-description attach 1
channel-description bs-pa-mfrms 5
channel-description bs-ag-blks-res 1
no access-control-class-ramping
access-control-class-ramping-step-interval dynamic
access-control-class-ramping-step-size 1
early-classmark-sending forbidden
early-classmark-sending-3g allowed
ip.access unit_id 1800 0
oml ip.access stream_id 255 line 0
neighbor-list mode manual-si5
neighbor-list add arfcn 100
neighbor-list add arfcn 200
si5 neighbor-list add arfcn 10
si5 neighbor-list add arfcn 20
codec-support fr hr efr amr
gprs mode none
no force-combined-si
trx 0
rf_locked 0
arfcn 111
nominal power 23
max_power_red 20
rsl e1 tei 0
timeslot 0
phys_chan_config CCCH+SDCCH4
hopping enabled 0
timeslot 1
phys_chan_config SDCCH8
hopping enabled 0
timeslot 2
phys_chan_config TCH/F
hopping enabled 0
timeslot 3
phys_chan_config TCH/F
hopping enabled 0
timeslot 4
phys_chan_config TCH/F
hopping enabled 0
timeslot 5
phys_chan_config TCH/F
hopping enabled 0
timeslot 6
phys_chan_config TCH/F
hopping enabled 0
timeslot 7
phys_chan_config SDCCH8+CBCH
hopping enabled 0
trx 1
rf_locked 0
arfcn 13
```

```
nominal power 23
max_power_red 20
rsl e1 tei 0
timeslot 0
phys_chan_config TCH/F
hopping enabled 0
timeslot 1
phys_chan_config TCH/F
hopping enabled 0
timeslot 2
phys_chan_config TCH/F
hopping enabled 0
timeslot 3
phys_chan_config TCH/F
hopping enabled 0
timeslot 4
phys_chan_config TCH/F
hopping enabled 0
timeslot 5
phys_chan_config TCH/F
hopping enabled 0
timeslot 6
phys_chan_config TCH/F
hopping enabled 0
timeslot 7
phys_chan_config TCH/F
hopping enabled 0
```

```
OSMO-BTS-TRX CLI:
OsmoBTS# show run
```

```
Current configuration:
!
!
line vty
no login
!
e1_input
e1_line 0 driver ipa
e1_line 0 port 0
no e1_line 0 keepalive
phy 0
osmotrx ip local 127.0.0.1
osmotrx ip remote 127.0.0.1
no osmotrx ms-power-loop
osmotrx timing-advance-loop
osmotrx base-port local 5800
osmotrx base-port remote 5700
osmotrx fn-advance 5
osmotrx rts-advance 5
instance 0
osmotrx rx-gain 0
osmotrx tx-attenuation 7
instance 1
osmotrx rx-gain 0
osmotrx tx-attenuation 7
bits 0
band GSM900
ipa unit-id 1800 0
oml remote-ip 5.40.0.1
rtp jitter-buffer 100
rtp port-range 16384 17407
paging queue-size 200
paging lifetime 0
uplink-power-target -75
gsmtap-sapi ccch
gsmtap-sapi pdtch
```

```
min-qual-rach 50
min-qual-norm -5
max-ber10k-rach 1707
trx 0
power-ramp max-initial 0 mdBm
power-ramp step-size 2000 mdB
power-ramp step-interval 1
ms-power-control dsp
phy 0 instance 0
trx 1
power-ramp max-initial 0 mdBm
power-ramp step-size 2000 mdB
power-ramp step-interval 1
ms-power-control dsp
phy 0 instance 1
end
```

OSMO-TRX CLI:
OsmoTRX# show run

Current configuration:

```
!  
!  
stats interval 5  
!  
line vty  
no login  
!  
trx  
bind-ip 127.0.0.1  
remote-ip 127.0.0.1  
multi-arfcn disable  
swap-channels disable  
egprs disable  
chan 0  
chan 1  
end
```

Related issues:

Has duplicate OsmoGSMTester - Bug #3560: nanoBTS multiTRX tests in osmo-gsm-t...

Stalled

09/17/2018

History

#1 - 09/30/2018 10:40 AM - laforge

- Assignee set to pespin
- Priority changed from Normal to High

#2 - 09/30/2018 10:41 AM - laforge

- Has duplicate Bug #3560: nanoBTS multiTRX tests in osmo-gsm-tester Prod setup failing added

#3 - 10/04/2018 02:57 PM - pespin

This task may actually be fixed by <https://gerrit.osmocom.org/#/c/osmo-bsc/+/11221>

Ron, which TRX and HW are you using? I think this issue is fixed but I cannot get it to work fully due to other issues:

- [#3560](#): nanoBTS multitr: Our current setup seem to have some calibration issues which makes MS unable to jump to channel allocated in 2nd TRX
- [#2760](#): Issues with osmo-trx using B200 with multi-arfcn feature.

Can you give a try with your setup and that patch applied? (just take master of everything if you wish).

#4 - 10/05/2018 07:54 AM - ron.menez@entropysolution.com

pespin wrote:

This task may actually be fixed by <https://gerrit.osmocom.org/#/c/osmo-bsc/+/11221>

Ron, which TRX and HW are you using? I think this issue is fixed but I cannot get it to work fully due to other issues:

- [#3560](#): nanoBTS multirx: Our current setup seem to have some calibration issues which makes MS unable to jump to channel allocated in 2nd TRX
- [#2760](#): Issues with osmo-trx using B200 with multi-arfcn feature.

Can you give a try with your setup and that patch applied? (just take master of everything if you wish).

Hi Pespín,

We are using an Ettus B210 for the testing.

We'll try to run another test using the latest versions and let you know the outcome.

#5 - 11/01/2018 04:17 PM - pespín

Hi @ron.menez@entropysolution.com, any news regarding this topic? did you have time to test with latest master?

#6 - 11/01/2018 04:55 PM - pespín

- *Status changed from New to Feedback*
- *% Done changed from 0 to 100*

I tested latest master locally with a B200 using multi-arfcn feature, using 2 channels and chan-allocator descending to be sure TRX1 was used. Everything works fine here. I leave it as feedback for a few more time to get your confirmation, otherwise I'll close this task.

#7 - 11/09/2018 03:46 PM - pespín

- *Status changed from Feedback to Resolved*

Closing after more than 1 week of stating issue is fixed.