OsmoBSC - Bug #3630

Too restrictive channel combination checks for nanoBTS

10/06/2018 08:11 PM - roox

Status:	Resolved		**Start date:**	10/06/2018
Priority:	Normal		**Due date:**	
Assignee:			**% Done:**	100%
Category:	ip.access BTS			
Target version:				
Spec Reference:				

Description

Today i've played with new cell broadcast support.
While it worked out of the box with osmo-bts and osmo-trx-lms I had some issues with a nanoBTS.

nanoBTS-GSM-Datasheet-v1.0.pdf states that it should be a possible to configure a CBCH on TS0 or TS1.

CCCH+SDCCH4+CBCH on TS0 fails with:

```
  <0004> abis_nm.c:1893 OC=CHANNEL(03) INST=(00,00,00): Invalid Channel Combination 7 on (bts=0,trx=0,ts=0). Reason: TS0 of TRX0 must carry a BCCH.
```

CCCH on TS0 + SDCCH8+CBCH on TS1 seems to work but it feels somewhat unreliable.
While a Samsung Galaxy A3 (2016 - SMA310F) seem to work fine a good old Nokia 6300 (RM-217) has issues getting onto the network:

```
<0003> abis_rsl.c:1359 (bts=0) CHAN RQD: reason: Location updating (ra=0x08, neci=0x01, chreq_reason=0x03)
<0010> lchan_fsm.c:76 lchan(0-0-1-SDCCH8_CBCH-1)[0x55736648f310]{WAIT_RLL_RTP_ESTABLISH}: (type=SDCCH) lchan allocation failed in state WAIT_RLL_RTP_ESTABLISH: Timeout
<0010> lchan_fsm.c:99 lchan(0-0-1-SDCCH8_CBCH-1)[0x55736648f310]{WAIT_RLL_RTP_ESTABLISH}: (type=SDCCH) Tx Immediate Assignment Reject (lchan allocation failed in state WAIT_RLL_RTP_ESTABLISH: Timeout)
<0010> lchan_fsm.c:76 lchan(0-0-1-SDCCH8_CBCH-3)[0x55736648f7b0]{WAIT_RLL_RTP_ESTABLISH}: (type=SDCCH) lchan allocation failed in state WAIT_RLL_RTP_ESTABLISH: Timeout
<0010> lchan_fsm.c:99 lchan(0-0-1-SDCCH8_CBCH-3)[0x55736648f7b0]{WAIT_RLL_RTP_ESTABLISH}: (type=SDCCH) Tx Immediate Assignment Reject (lchan allocation failed in state WAIT_RLL_RTP_ESTABLISH: Timeout)
```

Disabling the cannel config checks in src/osmo-bsc/abis_nm.c finally let me use CCCH+SDCCH4+CBCH on TS0 on the nanoBTS.
This also seems to work without any issues so far.

History

#1 - 10/06/2018 09:13 PM - laforge

please try https://gerrit.osmocom.org/#/c/osmo-bsc/+/11257 and report if it solves
the problem.

#2 - 10/07/2018 07:27 AM - roox

laforge wrote:

> please try https://gerrit.osmocom.org/#/c/osmo-bsc/+/11257 and report if it solves
> the problem.

CCCH+SDCCH4+CBCH can now be configured on TS0.
Thanks for the fix.

#3 - 07/18/2019 06:01 AM - laforge

- Status changed from New to Resolved

- % Done changed from 0 to 100