

OsmoNITB - Bug #1671

Combined 850/1800 NITB not seen by Option Icon2 stick

03/24/2016 06:53 AM - zecke

Status: Stalled	Start date: 03/24/2016
Priority: Low	Due date:
Assignee:	% Done: 0%
Category:	
Target version:	
Spec Reference:	
Description	
<p>When having a NITB with one GSM1800 BTS on ARFCN 877 and one on GSM850 on ARFCN 130 (that is not broadcasting), the Icon2 stick failed to join the network. When removing this cell (and hence the neighborcell information) it works immediately. The test was done with a nanoBTS.</p>	
Tests:	
<ul style="list-style-type: none">• Make this stable, I had issued another AT+CFUN=0/CFUN=1 today morning and while I did this yesterday it is not a clear call• Test with sysmoBTS and the nanoBTS (e.g. maybe some SIs are not scheduled)• Look if all generated SIs are being sent• Look at the spec if such config is legal..• Look at the generated SIs	
BTS 1 config	
<pre>bts 1 type sysmobts band GSM850 cell_identity 0 location_area_code 1 base_station_id_code 63 ms max power 15 cell reselection hysteresis 4 rxlev access min 0 periodic location update 30 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 ip.access unit_id 1802 0 oml ip.access stream_id 255 line 0 neighbor-list mode automatic codec-support fr gprs mode none no force-combined-si trx 0 rf_locked 0 arfcn 130 nominal power 23 max_power_red 22 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</pre>	

```
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
```

History

#1 - 03/24/2016 10:30 AM - laforge

I'm not even sure if a 850 + 1800 combination is legal at all. and even if it was legal as per the spec, I would assume that phone-side stack implementations likely are buggy, as it never happens in reality.

Either you're in the north-american region and then you have 850+1800, or you are in the rest of the world and have 900+1800.

It could be something as simple as the Icon2 assuming that if a neighbor is announced by an 850MHz cell, it must be a 1900 MHz ARFCN, not an 1800 MHz one. Or the other way around, if an 850MHz ARFCN is announced in the neighbor list, it all must refer to 1900MHz? Or some other oddity along those lines.

Remember, the 1800 MHz and 1900 MHz band ARFCNs are overlapping in their numeric range.

#3 - 04/15/2016 04:36 PM - msuraev

I could not find particular spec which covers it. In theory, 3-band phone for Brazil 850/1800/1900 might support it but not sure if at the same time. Shall we explicitly forbid such neighbor combinations in vty?

#4 - 06/30/2017 01:11 PM - msuraev

- Status changed from New to Stalled

#5 - 10/29/2017 06:51 PM - laforge

- Priority changed from Normal to Low

#6 - 01/22/2018 04:55 PM - msuraev

Should be re-tested with OsmoBSC.

#7 - 03/01/2018 11:17 PM - laforge

- Assignee deleted (msuraev)

#8 - 03/05/2018 07:35 PM - laforge

- Project changed from OpenBSC to OsmoNITB