

OsmoBSC - Feature #3483

handover decision: if rxlev is ok but rxqual is bad, move from TCH/H to TCH/F

08/20/2018 11:57 AM - neels

Status:	New	Start date:	08/20/2018
Priority:	Normal	Due date:	
Assignee:	neels	% Done:	0%
Category:	Handover		
Target version:			
Spec Reference:			
Description			
Bad quality scenario: rxlev is ok, but rxqual drops below the min_rxqual threshold.			
Handover decision 2 contains a switch from TCH/H to TCH/F to improve rxqual. See on_measurement_report() in handover_decision_2.c, by the comment "Bad Quality".			
However, that condition seems buggy: "if (... av_rxqual > ho_get_hodec2_min_rxqual(bts->ho))" should probably be the flipped?			
To test for this with real equipment, we could manipulate the min_rxqual threshold during a call.			
In ttcn3, we could use measurement reports.			
Related issues:			
Related to OsmoBSC - Feature #1608: various handover improvements, meta-issue		Rejected	02/23/2016

History

#1 - 08/20/2018 11:58 AM - neels

- Related to Feature #1608: various handover improvements, meta-issue added

#2 - 09/30/2018 10:45 AM - laforge

- Assignee set to neels

#3 - 10/10/2018 11:36 AM - neels

I expect this to already work, just need to make sure by explicit tests.

#4 - 10/16/2018 01:16 PM - neels

- Category set to Handover

#5 - 10/16/2018 01:33 PM - neels

Another problem: this magic number in on_measurement_report() should rather be ho_get_hodec2_min_rxlev():

```
if (rxlev2dbm(av_rxlev) > -85)
```

#6 - 10/16/2018 01:34 PM - neels

to be clarified is the issue of moving between codecs without transcoding support. Some comments are at <https://osmocom.org/issues/3503#note-5>

#7 - 10/16/2018 01:53 PM - neels

neels wrote:

However, that condition seems buggy: "if (... av_rxqual > ho_get_hodec2_min_rxqual(bts->ho))" should probably be the flipped?

3GPP TS 45.008 8.2.4 Range of parameter RXQUAL:

The BER values used to define a quality band are the estimated error probabilities before channel decoding

and RXQUAL_0 means BER < 0.2%, ... RXQUAL_7 means BER > 12.8%.

i.e. a higher RXQUAL value should indicate a worse signal, and the condition is not flipped.