

OsmoBSC - Feature #2722

document RACH tuning parameters more thoroughly, give explanations

12/08/2017 09:52 AM - laforge

Status: Resolved	Start date: 12/08/2017
Priority: High	Due date:
Assignee: daniel	% Done: 100%
Category:	
Target version:	
Spec Reference:	
Description	
Like any GSM network, we do have parameters such as rach max retransmission and rach tx integer that influence the RACH load (and RACH/IMM-ASS delay).	
Users on lightly loaded networks with few users need different defaults than users o highly [over]loaded cells.	
See also:	
<ul style="list-style-type: none">• http://gsm-optimization.blogspot.de/2012/04/tx-integer.html for some general recommendations + rationale• http://lists.osmocom.org/pipermail/openbsc/2009-December/002366.html for the OsmoBSC defaults + rationale• GSM TS 04.08 section 3.3.1.1.2 and 10.5.2.29	
In general:	
<ul style="list-style-type: none">• higher tx-integer will be better for high-load, but will increase the delay of a MS getting any channel• higher max-retransmissions means higher rach-load on the cell as the MS will make more re-tries. However, higher chance that it will get through, even in adverse radio conditions.	
Let's make sure we give proper advice to our users.	
Related issues:	
Related to OsmoBSC - Feature #2591: ramp up cell slowly based on access contr...	Resolved 10/23/2017
Related to OsmoBSC - Feature #1611: be more efficient in batching IMMEDIATE A...	Rejected 02/23/2016
Related to OsmoBSC - Feature #2592: Use "waiting time" of IMMEDIATE ASSIGN RE...	Resolved 10/23/2017
Related to OsmoBSC - Feature #2893: automatic simulator for large LU load	Stalled 01/27/2018

History

#1 - 12/08/2017 09:52 AM - laforge

- Related to Feature #2591: ramp up cell slowly based on access control class to avoid severe RACH/SDCCH overload added

#2 - 12/08/2017 09:52 AM - laforge

- Related to Feature #1611: be more efficient in batching IMMEDIATE ASSIGN REJECT messages added

#3 - 12/08/2017 09:52 AM - laforge

- Related to Feature #2592: Use "waiting time" of IMMEDIATE ASSIGN REJECT added

#4 - 01/27/2018 04:43 PM - laforge

- Related to Feature #2893: automatic simulator for large LU load added

#5 - 03/16/2018 07:52 PM - laforge

- Assignee changed from sysmocom to daniel

#6 - 08/02/2018 09:46 AM - daniel

- Priority changed from Normal to High

#7 - 01/08/2020 02:30 PM - daniel

- Status changed from New to In Progress

#8 - 01/08/2020 03:36 PM - daniel

- % Done changed from 0 to 60

I think this should cover it:

<https://gerrit.osmocom.org/c/osmo-gsm-manuals/+16769>

#9 - 01/09/2020 10:11 AM - daniel

- Status changed from In Progress to Resolved

- % Done changed from 60 to 100

Merged