

OsmoBSC - Feature #1611

be more efficient in batching IMMEDIATE ASSIGN REJECT messages

02/23/2016 04:21 PM - laforge

Status: Rejected	Start date: 02/23/2016
Priority: Normal	Due date:
Assignee: stsp	% Done: 0%
Category: A-bis RSL	
Target version:	
Spec Reference:	
Description	
<p>The RR Immediate Assignment Reject message can handle up to four identities that are rejected in a single message.</p> <p>We currently use one message per identity, wasting downlink AGCH capacity.</p> <p>I think this feature is relevant particularly in cases where many REJECTs are expected, i.e. where many phones are around that are not permitted to join. Think of a private/small GSM network in an area where there is no (good) public network coverage, but where lots of regular subscribers of the other operators pass by. Or in situations where the public network fails, forcing all the phones to try to register on the private/small network running OpenBSC.</p> <p>The problem is actually amplified, as</p> <ul style="list-style-type: none">• we waste one entire 23 byte MAC block for rejecting only a single subscriber• We don't scale the AGCH up by means of BS_AG_BLK_RES <p>Both of the features above would enable rejecting more phones (with permanent reject cause) ensuring they don't overload RACH+AGCH on the cell.</p>	
Related issues:	
Related to OsmoBSC - Feature #2592: Use "waiting time" of IMMEDIATE ASSIGN RE...	Resolved 10/23/2017
Related to OsmoBTS - Bug #1575: Correctly handle BS_AG_BLK_RES (AGCH/PCH spl...	Stalled 02/23/2016
Related to OsmoBSC - Feature #2722: document RACH tuning parameters more thor...	New 12/08/2017

History

#1 - 08/17/2017 06:48 AM - laforge

#2 - 10/23/2017 08:33 PM - laforge

- Assignee set to sysmocom

#3 - 10/23/2017 08:34 PM - laforge

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

#4 - 10/23/2017 09:00 PM - laforge

- Related to Bug #1575: Correctly handle BS_AG_BLK_RES (AGCH/PCH split in DL CCCH) added

#5 - 10/29/2017 06:39 PM - laforge

#6 - 12/08/2017 09:52 AM - laforge

- Related to Feature #2722: document RACH tuning parameters more thoroughly, give explanations added

#7 - 12/10/2017 08:05 PM - laforge

- Project changed from OpenBSC to OsmoBSC

- Category deleted (libbsc)

#8 - 12/10/2017 08:15 PM - laforge

- Category set to A-bis RSL

#9 - 01/25/2018 08:14 PM - laforge

- Assignee changed from sysmocom to stsp

#10 - 01/29/2018 09:16 AM - stsp

- Status changed from New to In Progress

#11 - 01/30/2018 05:51 PM - stsp

Assignment reject messages can be aggregated in either the BSC or the BTS.

It turns out that osmo-bts already has support for this: <http://git.osmocom.org/osmo-bts/commit/?id=4fcda92d7be7dd2df1870156206fea30cd02d3cc>

Would we need another implementation on the BSC-side? That would be a bit less straightforward than the BTS implementation, since the BSC would have to employ a heuristic to decide whether to keep aggregating or send an assignment reject to a BTS right away, whereas the BTS can aggregate any assignment rejects it has already received when it is time to make a transmission.

#12 - 01/30/2018 11:20 PM - laforge

On Tue, Jan 30, 2018 at 05:51:03PM +0000, stsp [REDMINE] wrote:

It turns out that osmo-bts already has support for this:

<http://git.osmocom.org/osmo-bts/commit/?id=4fcda92d7be7dd2df1870156206fea30cd02d3cc>

great.

Would we need another implementation on the BSC-side?

Not for now, at least not until we know for sure that other relevant BTS models like nanoBTS fail to do this inside the BTS.

#13 - 02/05/2018 01:20 PM - stsp

- Status changed from In Progress to Stalled

Setting status to 'stalled', until we learn more about how BTS models such as nanoBTS behave.

#14 - 05/17/2018 11:54 AM - laforge

- Status changed from Stalled to Rejected

reject this, as osmo-bts is already solving the problem.