

## OsmoBSC - Bug #4976

### network with no emergency calls - Is BSC still performing pre-emption?

01/26/2021 01:09 PM - laforge

<b>Status:</b>	Resolved	<b>Start date:</b>	01/26/2021
<b>Priority:</b>	High	<b>Due date:</b>	
<b>Assignee:</b>	dexter	<b>% Done:</b>	100%
<b>Category:</b>			
<b>Target version:</b>			
<b>Spec Reference:</b>			
<b>Description</b>			
It is suspected by a user that the following events may take place:			
<ul style="list-style-type: none"><li>• network does not permit/enable emergency calls</li><li>• sometimes, due to the bad RACH correlation properties, false positive RACHs are detected</li><li>• some of those fall within the "emergency" category</li><li>• osmo-bsc is still pre-empting/kickning out some other channel</li></ul>			
Based on a quick look of the code, this might be possible.			
In fact, I don't understand why we even bother to enqueue a RACH request in this situation. IMHO, the check should be done before enqueueing the RACH request to <code>bts-&gt;chan_rq_d_queue</code> if it is for RACH and we don't support RACH to begin with? But I'm not an expert on the related code.			
Please investigate.			

#### Associated revisions

##### Revision 80184ae1 - 01/26/2021 09:42 PM - dexter

abis\_rsl: check if emergency calling is disabled before preemption

If an emergency call arrives at the BSC while all TCH are busy, one TCH is cleared in favor of the emergency call. However, if emergency calls are disabled (system information), it is still possible that an MS might try an emergency call anyway or that due to interference a regular call might look like an emergency call (channel request reason). In those cases the preemption must not happen and the emergency call must be rejected.

Change-Id: I1af1f4f4fcb6e6a886bb5396901ce0cb2368a0e19

Related: OS#4976

#### History

##### #1 - 01/26/2021 01:09 PM - laforge

##### #2 - 01/26/2021 08:49 PM - dexter

- Status changed from New to In Progress

##### #3 - 01/26/2021 09:30 PM - dexter

- % Done changed from 0 to 80

I have checked this now back and it's indeed the case that the preemption takes place even though emergency calls are disabled. I have fixed that now to check earlier if emergency calls are disabled. If an emergency call is detected even though emergency calling is disabled we must reject that call.

See also: <https://gerrit.osmocom.org/c/osmo-bsc/+/22455> abis\_rsl: check if emergency calling is disabled before preemption

##### #4 - 01/26/2021 09:43 PM - dexter

I have moved up the check further up before the enqueueing of the request. This shouldn't make much of a difference, but it makes more sense.

**#5 - 01/27/2021 09:57 AM - laforge**

- *Status changed from In Progress to Resolved*

- *% Done changed from 80 to 100*

dexter wrote:

I have moved up the check further up before the enqueueing of the request.

thanks, patch merged.

This shouldn't make much of a difference, ...

tell that to the callers whose calls get interrupted for no reason :/

On a busy network without emergency calls I would expect this to happen relatively often.