

OsmoBSC - Feature #4046

BSC support for generating ETWS primary notifications

06/05/2019 10:51 AM - laforge

Status: Resolved	Start date: 06/05/2019
Priority: High	Due date:
Assignee: laforge	% Done: 100%
Category: A-bis RSL	
Target version:	
Spec Reference:	
Description	
ETWS (Earthquake and Tsunami Warning System) doesn't only use SMSCB, but also contains parts that ensure notification of all MS as quickly as possible. Specifically, this means	
<ul style="list-style-type: none">• there's a special PAGING REQUEST TYPE 1 sent on all sub-channels of the PCH• there's an RR APPLICATION INFO message sent over L3 DCCH to all MS with DCH established• there's a PACKET APPLICATION INFO message sent over PACCH to all MS with TBF established	
This ticket is about implementing the required features in the BSC. One of the problems is that TS 48.058 (RSL) doesn't appear to have been updated for support of ETWS.	
The paging messages are not encoded by the BSC but by the BTS; RSL PAGING COMMAND contains only the MS Identity, so there's no way to	
Related issues:	
Related to OsmoBTS - Feature #4047: BTS support for generating ETWS primary n...	Resolved 06/05/2019
Related to OsmoPCU - Feature #4048: PCU support for sending ETWS primary noti...	Resolved 06/05/2019
Related to OsmoBSC - Feature #3537: BSC support for CBSP (cell broadcast serv...	Resolved 05/06/2019 05/06/2019

Associated revisions

Revision f945689c - 09/05/2019 11:16 AM - laforge

gsm_08_58: Add vendor-specific Message Type for ETWS Primary Warning

Change-Id: I36fc2ffc22728887d1cb8768c7fcd9739a8ec0fc

Related: OS#4046, OS#4047

Revision 994df263 - 09/05/2019 11:16 AM - laforge

Introduce BTS_FEAT_ETWS_PN for communicating ETWS PN capability

As 3GPP doesn't specify how the BSC shall communicate ETWS Primary Notifications over Abis/RSL, we have to use a vendor-specific RSL message for this. And in order to know if the peer supports this feature, we introduces BTS_FEAT_ETWS_PN.

Change-Id: I89c24a81ada6627694a9632e87485a61cbd3e680

Related: OS#4046, OS#4047

History

#1 - 06/05/2019 10:54 AM - laforge

- Related to Feature #4047: BTS support for generating ETWS primary notifications added

#2 - 06/05/2019 10:58 AM - laforge

- Related to Feature #4048: PCU support for sending ETWS primary notifications added

#3 - 06/05/2019 10:59 AM - laforge

- Related to Feature #3537: BSC support for CBSP (cell broadcast service protocol) added

#4 - 06/15/2019 04:17 PM - laforge

The RSL PAGING CMD is not suitable for ETWS primary notification, as it only transfers a single identity to be paged, while the ETWS primary notification is more something like "background traffic" on the PCH. It fills the PCH PAGING CMD1 rest octets with (segments of) the ETWS primary notification.

So as a result, the best option is to have a vendor-specific Abis RSL message for enabling/disabling ETWS primary notification broadcasting in the BTS downlink PCH.

#5 - 07/18/2019 06:00 AM - laforge

- Priority changed from Normal to High

#6 - 09/02/2019 12:39 PM - laforge

- Checklist item [x] generating + sending RR APPLICATION INFO to all established DCCH set to Done

- Status changed from New to In Progress

- % Done changed from 0 to 20

generating it from CBSP and sending it to dedicated channels now implemented in change-id I913d0237cfffcb95037da8489acef5f32a7fc02e available from laforge/cbsp branch of osmo-bsc.git.

#7 - 09/05/2019 11:32 AM - laforge

- Checklist item [x] generating + sending PAGING REQUEST TYPE 1 with ETWS primary notification set to Done

- Checklist item [x] designing method how pre-encoded PAGING REQUEST TYPE 1 can be sent over A-bis set to Done

- % Done changed from 20 to 60

#8 - 09/05/2019 12:32 PM - laforge

- Checklist item [x] designing method to inform PCU about primary ETWS notification set to Done

- % Done changed from 60 to 80

Forwardign to PCU implemented in <https://gerrit.osmocom.org/c/osmo-bts/+/15420> and tested in <https://gerrit.osmocom.org/c/osmo-ttcn3-hacks/+/15421>

#9 - 09/08/2019 08:43 AM - laforge

- Status changed from In Progress to Resolved

- % Done changed from 80 to 100

patches merged