

## OsmoBSC - Feature #1605

### logging / ring buffer for ALERT messages from A-bis OML from the BTS side

02/23/2016 03:59 PM - laforge

<b>Status:</b>	In Progress	<b>Start date:</b>	02/23/2016
<b>Priority:</b>	Low	<b>Due date:</b>	
<b>Assignee:</b>	osmith	<b>% Done:</b>	70%
<b>Category:</b>			
<b>Target version:</b>			
<b>Spec Reference:</b>			
<b>Description</b>			
OML ALERT messages are currently not really used much. They should be used more from the BTS side, and the BSC component in the NITB should not only log them somewhere but possibly even keep an in-memory ring buffer for each BTS/TRX so one can inspect the most recent errors for those objects via the VTY.			
<b>Related issues:</b>			
Related to OsmoBSC - Feature #1857: aggregate and report OML ALERT messages r...		<b>New</b>	<b>11/18/2016</b>

#### History

##### #1 - 11/18/2016 10:09 PM - laforge

- Related to Feature #1857: aggregate and report OML ALERT messages received from BTSs added

##### #2 - 12/10/2017 08:05 PM - laforge

- Project changed from OpenBSC to OsmoBSC

- Category deleted (libbsc)

##### #3 - 09/30/2018 10:48 AM - laforge

- Assignee set to osmith

##### #4 - 09/30/2018 10:49 AM - laforge

This is actually slightly similar to the "show last unsuccessful BTS connection attempts". In both cases we want to keep a ring-buffer of most recent events. However, the difference is that for ALERT, we want one FIFO ring buffer per BTS, while for the BTS connection attempts, we want one global ring buffer, and entries should be overwritten in case the same BTS attempts again...

##### #5 - 03/17/2020 02:23 PM - osmith

- Status changed from New to In Progress

##### #6 - 03/20/2020 03:59 PM - osmith

- Description updated

- % Done changed from 0 to 30

OML ALERT messages are currently not really used much. They should be used more from the BTS side

Nowadays, the BTS seems to make good use of the OML failure reports. [Example patch](#)

and the BSC component in the NITB should not only log them somewhere

I've verified that the BSC is logging these messages.

but possibly even keep an in-memory ring buffer for each BTS/TRX so one can inspect the most recent errors for those objects via the VTY.

This is what I'm working on now.

I realized that it is not possible to send OML failure reports from the TTCN-3 test suite, only RSL error reports. So, for manual testing during development, I've added a test VTY command to osmo-bts-virtual to send an OML failure report to the BSC. (osmo-bts branch: osmith/alert-buffer)

This works, the OML failure reports arrive at the BSC and I found the place to handle them. I've added code to save it to a ring buffer and a VTY command to read it out. While testing, I'm currently getting segfaults when accessing the llist, although it is already initialized.

WIP branch for osmo-bsp: osmith/alert-buffer

**#7 - 03/21/2020 11:30 AM - laforge**

On Fri, Mar 20, 2020 at 03:59:03PM +0000, osmith [REDMINE] wrote:

I realized that it is not possible to send OML failure reports from the TTCN-3 test suite, only RSL error reports.

That's only half true. Since May 2019, library/AbisOML\_\* contains type definitions, templates and an "Emulation" part for OML. Even ts\_OML\_FailureEvtRep() exists. It's just that none of our existing tests / test suites uses it.

I currently don't see a reason why they couldn't be used. Sure, as a first user you might run into bugs, but I think it should at least be tried.

**#8 - 03/23/2020 09:28 AM - osmith**

laforge wrote:

On Fri, Mar 20, 2020 at 03:59:03PM +0000, osmith [REDMINE] wrote:

I realized that it is not possible to send OML failure reports from the TTCN-3 test suite, only RSL error reports.

That's only half true. Since May 2019, library/AbisOML\_\* contains type definitions, templates and an "Emulation" part for OML. Even ts\_OML\_FailureEvtRep() exists. It's just that none of our existing tests / test suites uses it.

Cool, I'll try this!

**#9 - 03/23/2020 10:25 AM - osmith**

osmith wrote:

While testing, I'm currently getting segfaults when accessing the llist, although it is already initialized.

The wrong BTS pointer is getting passed, fix here: <https://gerrit.osmocom.org/c/osmo-bsp/+17569>

**#10 - 03/23/2020 02:52 PM - osmith**

- % Done changed from 30 to 60

keep an in-memory ring buffer for each BTS/TRX so one can inspect the most recent errors for those objects via the VTY.

Patch submitted: <https://gerrit.osmocom.org/c/osmo-bsp/+17571>

Another patch submitted with what I've been using for manual testing with OsmoBTS: <https://gerrit.osmocom.org/c/osmo-bts/+17573>

Automated TTCN-3 test remains.

**#11 - 03/27/2020 09:40 AM - osmith**

- % Done changed from 60 to 70

Patches merged.