libosmocore - Bug #1938
lapd_core human readable connection IDs in debug log

02/03/2017 11:31 AM - dexter

Status: Resolved
Priority: Low
Assignee: laforge
Category:
Target version:
Spec Reference:

Description
At the moment we print the pointer address to identify the log lines belonging to a specific connection. Since pointer addresses are difficult to work with, a human readable ID should be printed instead.

e.g. "This is LAPD instance for SAPI3 on bts0/trx1/ts5/lchan3"

This can be implemented by adding a string member to the lapd_datalink struct. The user would set the string to a human readable identifier when the link is created. (See also osmo_fsm).

See also: https://gerrit.osmocom.org/#/c/1724/

Associated revisions
Revision a003fec7 - 06/07/2020 08:31 PM - laforge
Ensure we include lchan name in all LAPDm log lines

This makes use of the newly-introduced lapd_channel_init3() API, which provides the user (BTS in this case) to provide a human-readable string identifier for each LAPDm channel. This identifier is subsequently used in all related log lines to provide context.

This means we will now get context information about which specific SAPI in which sub-channel (ACCH/DCCH) on which lchan/ts/trx/bts a given message originated from.

Example:
DLLAPD <0011> lapd_core.c:829 ((bts=0,trx=0,ts=0,ss=0)[DCCH][0]) SABM received in state LAPD_STATE_IDLE

Change-Id: I17e3d4797ec71e31d0775330ae36d2e1fd70423f
Depends: libosmocore.git le6742843ff809edffcac24c4dce4edf66bc71b
Related: OS#1938

Revision 00b2faf8 - 06/08/2020 07:16 PM - laforge
lapd/lapdm: print user-defined string name instead of (dl=%p)

At the moment we print the pointer address to identify the log lines belonging to a specific connection. Since pointer addresses are difficult to work with, a human readable ID should be printed instead.

e.g. "This is LAPD instance for SAPI3 on bts0/trx1/ts5/lchan3"

Change-Id: le6742843ff809edffcac24c4dce4edf66bc71be
Closes: OS#1938

Revision b9031880 - 06/09/2020 07:11 AM - laforge
lapd: Always print context information when logging

Historically, OpenBSC has primarily been used with setups that have a single E1 based BTS connected. This meant that an error message on the E1 LAPD implicitly has to be related to that single BTS.

However, in more comprehensive setups, there may be many BTSs on many E1 lines with many signaling slots. At this point, it’s important to know which line/timeslot/tei/sapi a given log message relates to.

03/09/2022
This patch introduces related log context.

Revision a8643789 - 11/17/2021 08:19 PM - laforge
lapd: don't add parenthesis around datalink name

The name [printing] works like this:

- libosmo-abis:lapd tells libosmgsm:lapd_core a name for each data link
- libosmgsm:lapd_core assumes this name has no parenthesis and puts additional parenthesis around it in macros like LOGDL

However, current libosmo-abis:lapd [before this patch] adds its own set of parenthesis, causing all ISDN-LAPD related log messages generated by libosmgsm:lapd_core to have double-parenthesis.

So we have to remove the parenthesis from lapd_datalink.name and lapd_instance.name to fix the log lines printed in libosmocore.

This in turn means we have to add parenthesis to some log statements here in libosmo-abis:lapd.

Why can't we instead modify libosmgsm:lapd_core to drop parenthesis there? Because it is also used by LAPDm code in osmo-bts, and those two get it right :)

Change-Id: I688cf2a73a8c31cb3cf66ec005d02a14de197008
Related: le6742843ff809edf66bc71be
Related: OS#1938

History

#1 - 05/17/2018 02:02 PM - laforge
- Priority changed from Normal to Low

#2 - 01/08/2020 10:25 PM - laforge
- Assignee deleted (dexter)

#3 - 05/02/2020 04:52 PM - laforge

#4 - 05/02/2020 06:05 PM - laforge
- Status changed from New to In Progress
- Assignee set to laforge

#5 - 05/02/2020 07:36 PM - laforge
- % Done changed from 0 to 80

- libosmocore: https://gerrit.osmocom.org/c/libosmocore/+/18002
- libosmo-abis: https://gerrit.osmocom.org/c/libosmo-abis/+/18003
- osmo-bts: https://gerrit.osmocom.org/c/osmo-bts/+/18004

#6 - 06/13/2020 01:30 PM - laforge
- Status changed from In Progress to Resolved
- % Done changed from 80 to 100

patches all merged now.