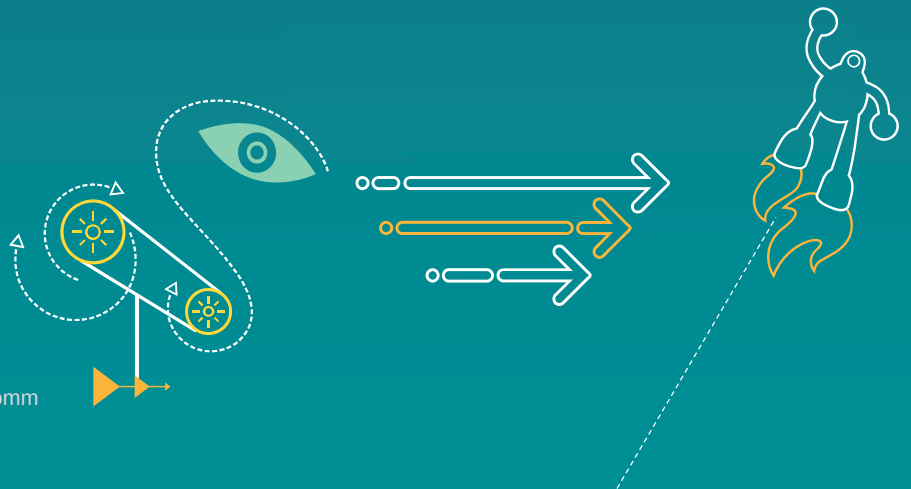
高通协议技术期刊 – 2014/10/17

Qualcomm Technologies, Inc.



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内容

- 8916/8936/8939系统解决方案
- MBN solution number
- 协议日志分析关键字
- 如何在Salesforce上快速创建Case
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8916/8936/8939系统解决方案Solution

为了直观，便于检索，我们在Saleforce系统上编写了系统解决方案。包含各个技术领域，便于大家查找。

8916系统解决方案

Solution Number: 00029134

链接： https://qualcomm-cdmatech-support.my.salesforce.com/50130000000VfUZ?srPos=0&srKp=501

8936/8939系统解决方案

Solution Number: 00029333

链接：https://qualcomm-cdmatech-support.my.salesforce.com/50130000000Vg5B

MBN介绍

- MBN的设计需求，文档，实现方法, 请参阅Solution number:00029357.

https://qualcomm-cdmatech-support.my.salesforce.com/50130000000VgDA?srPos=0&srKp=501

协议日志分析关键字

以下是协议各个技术方面的Qualcomm Log 关键字。客户可以在QXDM、文本编辑工具如SlickEdit/Ultraedit等输入这些关键字搜索，进行log的初步分析。

Solution number：00030008

1) Data Service：

data call setup/tear down from Android:
start_network|stop_network

DSD related info:
ds_dsd|ds3gdsd|notify external

Iface up/down:
UP IFACE|DOWN IFACE|IFACE UP|IFACE DOWN

DS received events from Low layer(CM):
Rx'd

LTE data:
Refer to 80-VU868-1_F_LTE_Data_Call_Scenarios

协议日志分析关键字

2) LTE inter RAT reselection and frequency scan

(1). Keywords for LTE→TD-SCDMA reselection

Meas rules, Tresel thresh, Tresel, Thresh_x, CSP – Reselection indication received, L2T, lte_rrc_meas.c

(2). Keywords for TDSCDMA→LTE reselection

SysInfoType19, ABS_PRIO – TDSSRCHLTEDRV, LTE detection, X2L, CEL RESEL IND

(3). Keywords for LTE→GSM reselection

Meas rules, Tresel thresh, Tresel, Thresh_x, lte_ml1_sm_gsm.c

(4). Keywords for LTE frequency scan

lte_rrc_csp, lte_ml1_sm_fs

协议日志分析关键字

3) GERAN

(1)General GERAN log key word

0x5079|0x506c|rr_sys_info.c|rr_acq_db.c|rr_shared_cell_selection.c|rr_candidate_cell_db.c|rr_shared_cell_selection.c|0x5064|rr_gprs_debug.c|rr_gprs_general.c|l1_bcch_list.c|rr_cellreselectin.c|rr_pscan.c|rr_sys_info.c|0x5082 GSM cell reselection after lose coverage l1_idle.c|l1_cnf1.c|rr_sys_info.c|rr_sys_info.c|rr_resel_calcs.c|rr_candidate_cell_db.c |rr_shared_cell_selection.c|0x5079|0x506c|0x5064|0x5082

(2)3G-2G InterRAT key word

rr_cell_selection.c|rr_gprs_debug.c|rr_control.c| mmcoord.c |mmcoord_process_rr_plmn_select_cnf()|l1_sc_wcdma.c|gl1_msg_wcdma_meas.c|rr_ded_meas_reporting.c|INTERSYSTEM_TO_UTRAN|GTOW handover

协议日志分析关键字

4) NAS/MultiMode

(1)SD:

Sd.c|sdss.c|sdssscr.c|sdsr.c|sdcmd.c|sdnv.c|sdprl.c|sdmmss.c|acq_cdma|acq_hdr|acq_gwl|camp

(2) CM

cmdbg.c|cm.c|cmph.c|cmcall.c|cmregprx.c|cmss.c|cmcmd.c|cmpref.c|cmsds.c|callcmd|mmoc.c|cmpmprx.c|cmmsc.c|cmmsc_auto.c|cmsimcoord.c|cmmmgsdi.c|cmmsc.c|cmsoa.c|0x134F|0x1273|oprt_mode

(3)MMOC

mmoc.c|mmocdbg.c|mmocmmgsdi.c

(4) NAS

NAS General:

cmregprx.c|0x134f|0x1273|event_nas|event_sd|event_cm|sim_avail|cm_service|mmr_reg|mmcoord.c|mmsend.c|mmsim.c|mmtimers.c|mmrrcconn.c|mmplmnsel.c|RRC_SERVICE|^ message|rr_plmn|service on|LAI has changed|reg_state.c|reg_send.c|reg_mode.c|reg_state_registering.c reg_mode_automatic_plmn_selection.c|mnutils.c|mn_cc_processing.c|cnmlog.c|gmmmsg.c|gmm_main.c|gmmconn.c|smgmm.c|smutils.c|ds3gmshif.c|0x5230|0x713A|0x7B3A|emm:|esm:| emm_reg_handler.c|0xB0E2|0xB0E3|0xB0EC|0xB0ED|lte_rrc_

(5)WMS

wms.c|wmsbc.c|wmsutils.c|wmscm_gw.c|wmscm.c|wmscfg.c|wmssim.c|wmsdbg.c|wmsmsg.c

协议日志分析关键字

5)C2K

exit|expire|fail|mcc|rxc|txc

C2K protocol related: C2K call related: cmcall|cmdbg|cmcc

C2K system lost related: srchacq|srch state|acc_term=|sys_lost=

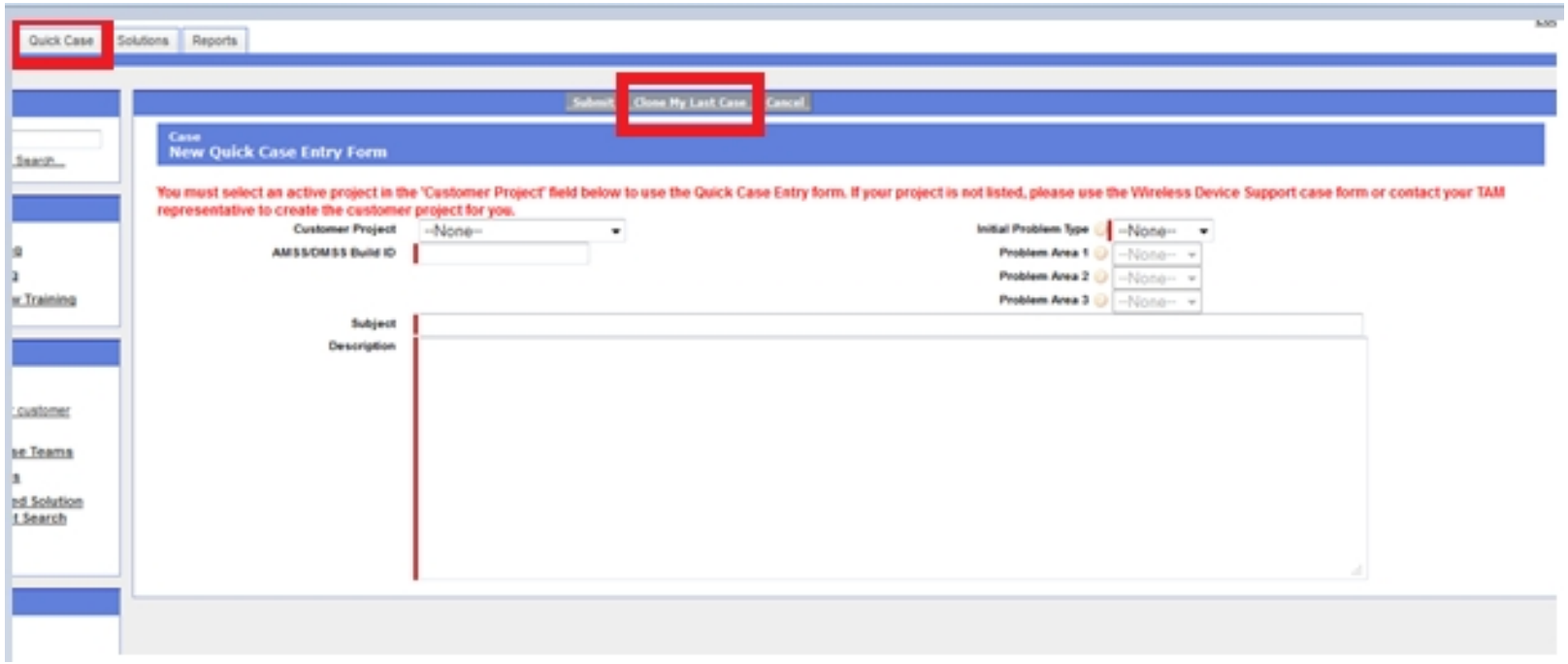
C2K MMOD related: cmph|cmregpx|cmsds|cmsoa|policyman|mmoc|sdss|sdcmd|sd.c

6)UIM General :

1. Firstly filter all UIM related log packet: mmgsdi| stk| uim|RX PDU|TX PDU
2. To check card status transition: mmgsdi_evt_cb
3. To check QMI_UIM/QMI_CAT messages, filter RX PDU|TX PDU then export to txt search QMI_UIM|QMI_CAT

如何在Salesforce上快速创建Case

- SF(Salesforce) 新添加Quick Case功能以方便客户工程师快速创建Case
- 注意事项
  - 点击SF页面顶部的“Quick Case”选项页
  - 该快捷方式只能用于创建**Wireless Device,** 不能用于**QCA**或**Design Review**类Case
  - 可以使用”Clone My Last Case”
  - 正确的Problem Area，详细的问题描述，可以加速问题的解决
  - Problem Code and Build ID 一定要填写正确。



CT doc update.

下面这篇文档用于指导CDMA产品通过中国电信和CTA的测试。

80-NM982-2, Rev A.

一种GSM网络环境下，主叫端在电话接通瞬间听到的噪声问题分析

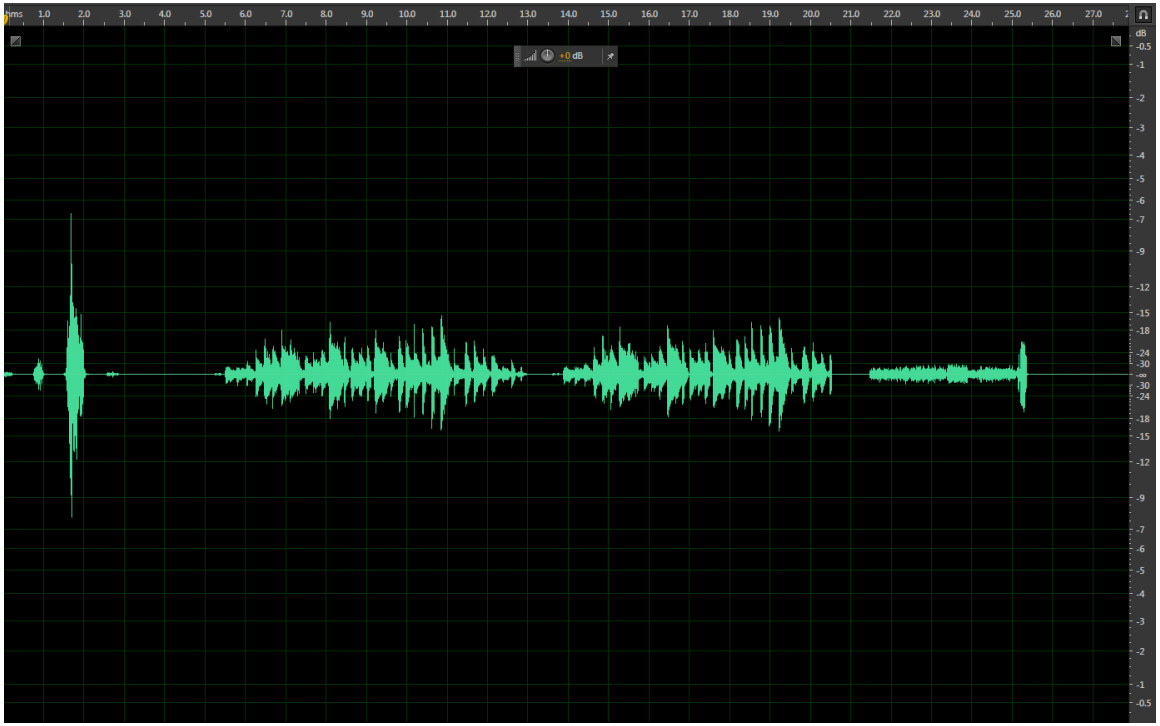
在部分GSM网络环境下使用EFR信源编码方式进行通话，如果被叫端开启彩铃业务，则在电话被接通的瞬间，会在主叫端听到“ZiZi”的噪声，噪声的持续大约在500ms~1000ms，足以引起的通话人的察觉。请注意这是一个网络问题，该问题一般仅在对方开启彩铃业务时才会发生。

噪声产生的原因是，在主叫端呼通被叫端但是被叫端仍未接通的过程中，网络会给主叫端播放定制的彩铃音乐。当被叫接通电话，即网络收到被叫的CONNECT消息之后，网络需要给主叫端也发送CONNECT消息，同时终止进行中的彩铃音乐播放。这个控制环节中，由于本质上有效的双方有效的语音还未被完全激活，在终止音乐到双方说话之间的时间，网络处于DTX状态。理论上，网络必须在彩铃和之后的无声状态中，插入有效的带内信令，保证手机能够识别声音状态的突变。但事实上，部分网络并没有这样实现，导致手机在收到网络在之后DTX下的静音帧之后，产生了较为突兀的舒适噪声，即“ZiZi”声。

若您在测试过程中，遇到此类问题，请仔细甄别是否和上述的场景类似，关键点包括主叫端噪声，EFR编码，彩铃激活，噪声持续时间等。

参考的音频谱线如下，中间两段重复的波形是彩铃，最后一段幅度较小的密集波形即为“ZiZi”声。

一种GSM网络环境下，主叫端在电话接通瞬间听到的噪声问题分析



一种GSM网络环境下，主叫端在电话接通瞬间听到的噪声问题分析

具体技术细节原文描述如下：

This issue is related to DTX handling in the GSM EFR vocoder. The problem occurs when the MSC does not insert a homing sequence after sending a DTMF or ringback tone into Rx vocoder speech frames. Presenting a homing sequence would reset the decoder state. If this is missed at the end of a DTMF/ringback tone, out-of-sync Rx/Tx DTX results and noise is generated via the following scenario:

The MSC sends a homing sequence before mixing the DTMF/ringback tone. This specification-compliant behavior causes a voice codec reset.

After DTMF/ringback tone transfer is done, the MSC does not send a homing sequence to the UE.

A Silent Insertion Descriptor (SID), sent by the remote UE, is received in the UE immediately.

Comfort noise reference gain is updated by using the DTMF/ringback tone signals as the hangover frames (noise reference) in the hangover period. That is because the last seven speech frames are retained in memory for reference to calculate the noise reference comfort level when the first SID is received. Because there is no homing sequence after the DTMF/ringback tone, this is not cleared.

This leads to a very high reference noise gain level in the Rx DTX handler.

By replicating the last valid SID frames, subsequent BFI frames cause the noise to continue.

Questions?

You may also submit questions to:
https://support.cdmatech.com