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Revision History

Revision	Date	Description
A	Jan. 2016	Initial release

Note: There is no Rev. I, O, Q, S, X, or Z per Mil. standards.

内容

- Audio
 - Important docs update 180 Rotation on 8996
 - 如何提Audio死机相关问题的case
 - QXDM PCM dump attentions
 - Audio common issues

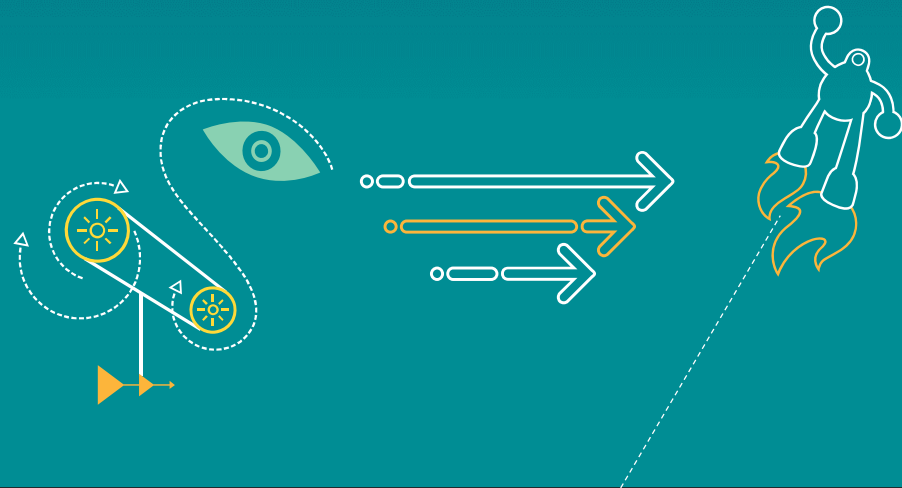
Audio



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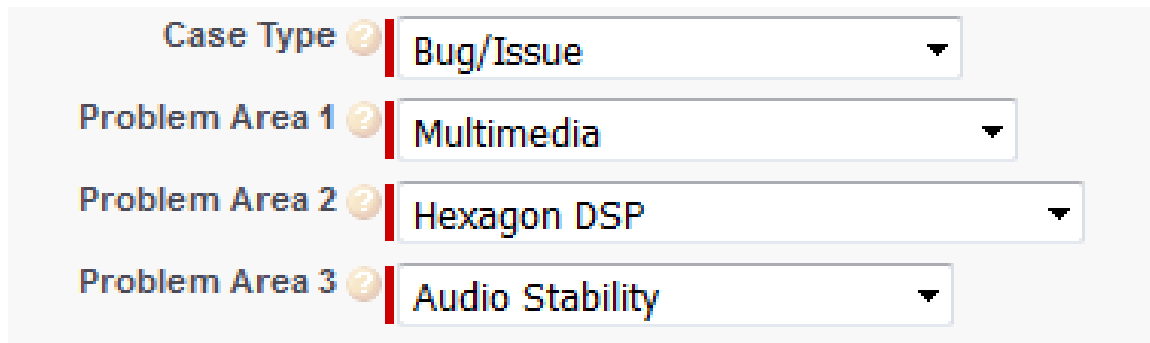


Important docs update

- Docs
 - [80-NU154-37](#) A MSM8956_MSM8976_Voice_Architecture.pdf
- Solutions
 - [00031331](#) [MSM8996] Measuring the power for WCD CPE based OK Google Hotword use case .

如何提Audio死机相关问题的case

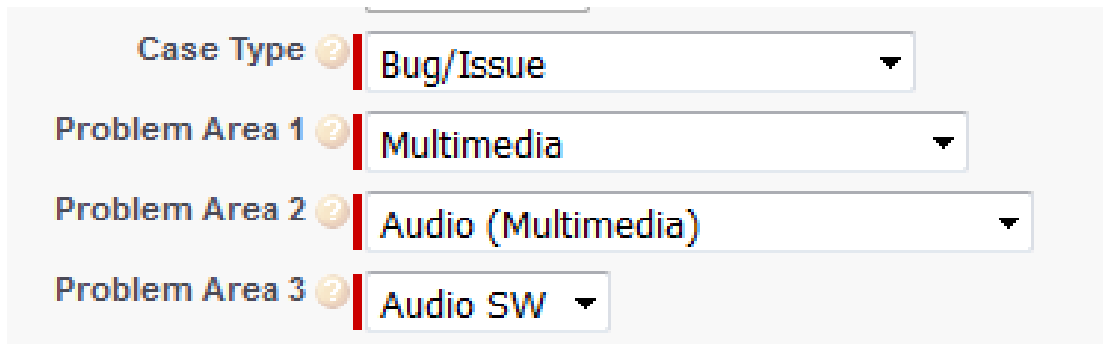
- 为提高case处理速度，在您提音频死机相关的case时，请务必做好以下几个注意事项，这样可以避免来回沟通，可以最快的帮您解决问题。
- 注意事项：
 - 1) 填写正确的Problem Area。
 - 如果是Audio DSP死机，请按照以下截图填写Problem Area 1,2,3：



A screenshot of a web form for reporting a case. It contains four dropdown menus, each with a question mark icon to its left. The first dropdown is labeled 'Case Type' and has 'Bug/Issue' selected. The second is labeled 'Problem Area 1' and has 'Multimedia' selected. The third is labeled 'Problem Area 2' and has 'Hexagon DSP' selected. The fourth is labeled 'Problem Area 3' and has 'Audio Stability' selected.

Case Type ?	Bug/Issue
Problem Area 1 ?	Multimedia
Problem Area 2 ?	Hexagon DSP
Problem Area 3 ?	Audio Stability

- 如果是AP侧audio死机，请按以下填写Problem Area:



A screenshot of a web form for reporting a case, similar to the one above but with different selections. It contains four dropdown menus. The first dropdown is labeled 'Case Type' and has 'Bug/Issue' selected. The second is labeled 'Problem Area 1' and has 'Multimedia' selected. The third is labeled 'Problem Area 2' and has 'Audio (Multimedia)' selected. The fourth is labeled 'Problem Area 3' and has 'Audio SW' selected.

Case Type ?	Bug/Issue
Problem Area 1 ?	Multimedia
Problem Area 2 ?	Audio (Multimedia)
Problem Area 3 ?	Audio SW




如何提Audio死机相关问题的case – 续

- 注意事项：

- 2) 填写正确的META ID，如下所示，META ID请务必填写准确。如果不确定的话，请联系你们的PM确认。

AMSS/DMSS Software	
AMSS/DMSS Software	AMSS8974AA
AMSS/DMSS Build ID	M8974AAAAANLYD42851183.1
OS Version	<input type="text"/>
Additional Software Licenses	
Official SBA Delivered	<input type="checkbox"/>
Official SBA Delivery Date	

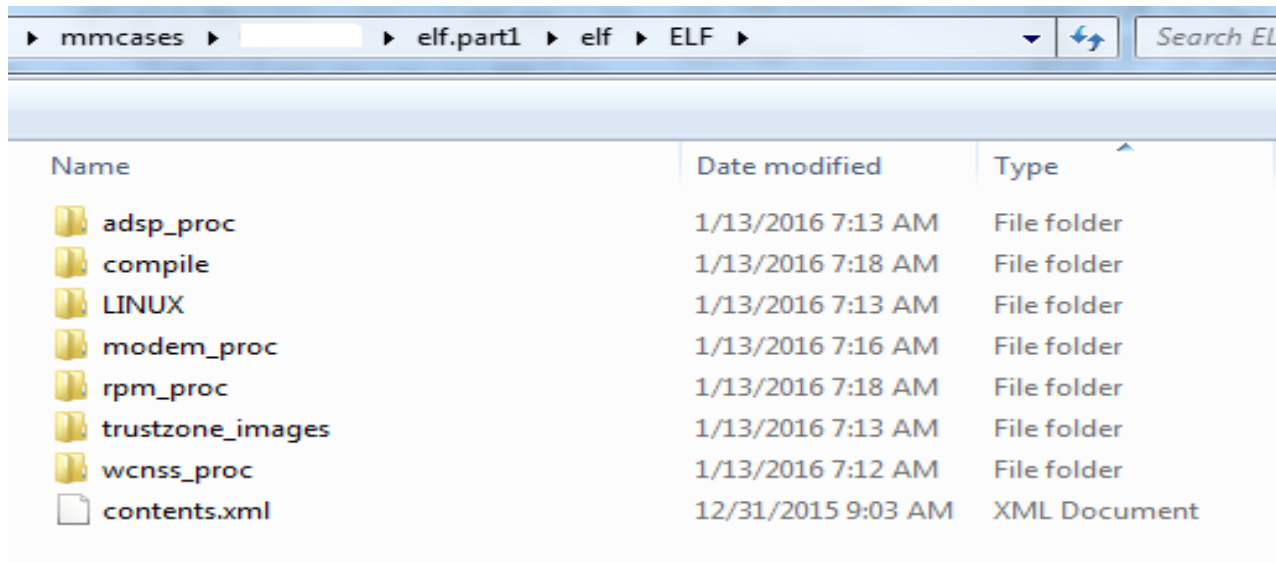
- 3) 请把完整的dump文件上传到case附件。一个dump文件夹可以是一个压缩包，也可以是一个文件夹切割成多个小压缩包，类似下图这样：

 Port_COM24.part1.rar	1/12/2016 5:34 PM
 Port_COM24.part2.rar	1/12/2016 5:34 PM
 Port_COM24.part3.rar	1/12/2016 5:34 PM

如何提Audio死机相关问题的case – 续

- 注意事项：

- 4) 请把完整的ELF文件上传到case附件，为避免来回沟通，请一次性把所有子系统的ELF文件统一放在一个文件夹里面，文件夹命名为“elf”，然后压缩上传（压缩包同样可以切割成几个小压缩包，如下图）。各个子系统的ELF文件目录结构类似下面这样，其中最少必须提供vmlinux和adsp的ELF：

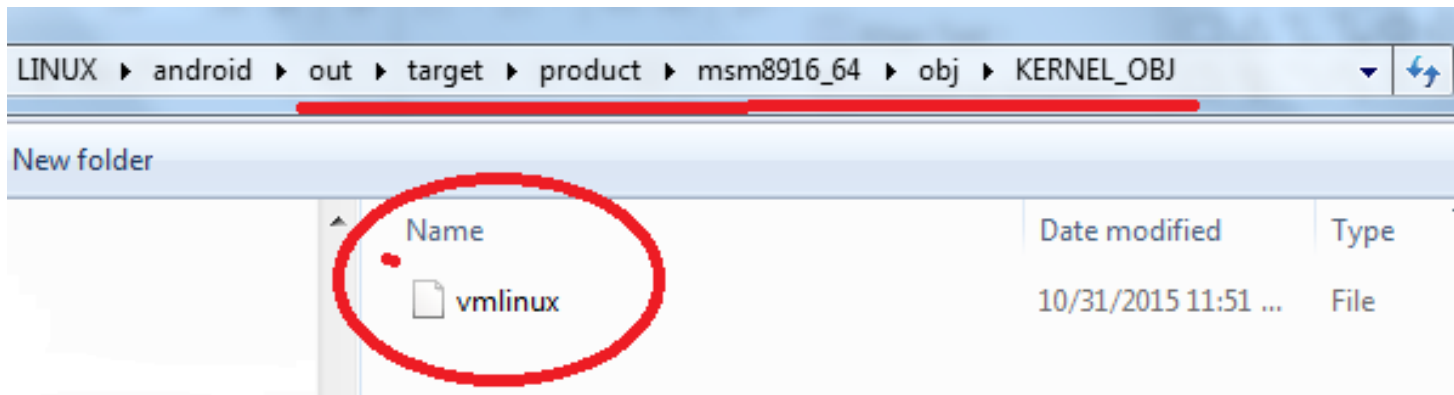


NEW Case Attachments				Add Case Attachment	
Action	File Name	Description	Uploaded By		
Edit	elf.part1.rar	elf	Customer		
Edit	elf.part2.rar	elf	Customer		

如何提Audio死机相关问题的case – 续

- 注意事项：

- 5) 请不要更改各个elf文件的名字，比如在你的Android out目录下面，ELF对应的名字是vmlinux，请保持这个名字，不要更改它。其他子系统的ELF文件也是一样，直接**copy**到新建的elf文件夹下面去，不要去更改那些文件本身的名字。

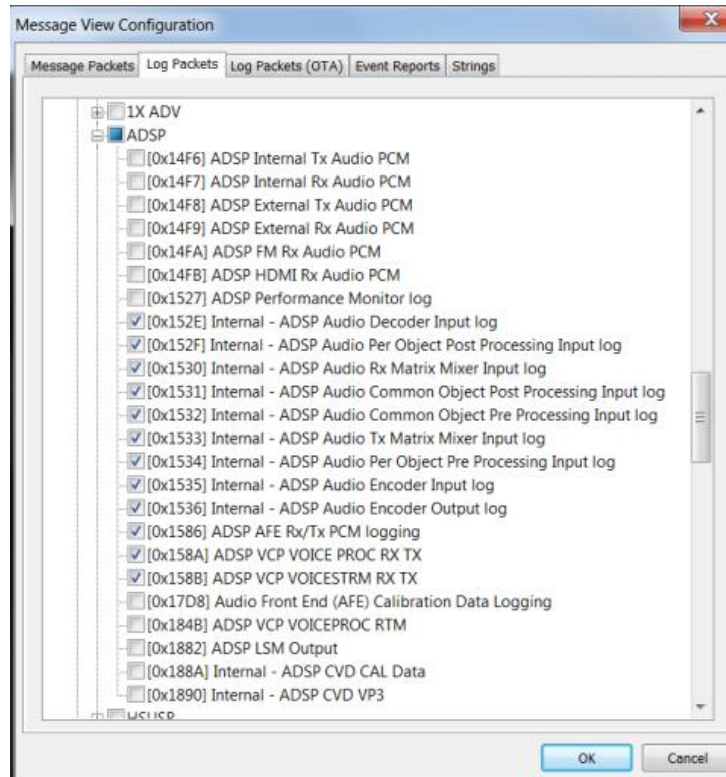


ADSP dynamic loading attention

- 1, 对于ADSP动态加载的平台,如8952/8956/8976/8996,首先必须保证adspso.bin要刷到手机,不然会出现通话无声,某些格式无法播放等问题
 - fastboot flash dsp <ADSP BUILD PATH>\adsp_proc\build\<Target Name>\dynamic_signed\adspso.bin
- 2, 可以使用ADB/fastboot刷写验证image:
 - 如果直接刷默认release的firmware/adspso.bin, 务必保证firmware和adspso.bin来自同一个build. 否则可能导致签名检查失败, 出现问题;
 - 2.1. Flash ADSP image
 - adb wait-for-devices root
 - adb wait-for-devices remount
 - adb wait-for-devices shell mount -o remount, rw /firmware
 - adb wait-for-devices shell rm /firmware/image/adsp*
 - adb wait-for-devices shell rm /etc/firmware/adsp*
 - adb wait-for-devices push <ADSP-PATH>\adsp_proc\obj\<Target>\LA\system\etc\firmware /firmware/image
 - adb push <ADSP-PATH>\adsp_proc\obj\qdsp6v5_ReleaseG\LA\system\etc\firmware /etc/firmware/
 - adb wait-for-devices shell sync
 - adb wait-for-devices reboot
 - 2.2. Flash the new dsp partition
 - fastboot flash dsp <ADSP BUILD PATH>\adsp_proc\build\<Target Name>\dynamic_signed\adspso.bin
 - 如果客户有自己编译ADSP, 请检查adspso.bin是否有更新, 如果没有更新, 可以只更新firmware(上述2.1);
 - 如果adspso.bin的编译之后有更新, 则必须把编译之后的firmware和adspso.bin同时刷入. 否则可能导致通话无声等问题.
- 3, 如果客户对ADSP firmware有额外的加密机制, 请保证工程师的编译环境也配置好了同样的加密机制, 否则可能导致adsp load时鉴权失败, 导致整机无声问题.

QXDM PCM dump attentions

- 1, 如果发现QXDM的PCM dump有noise, 存在一种可能是由于使能了太多的PCM抓取点, 导致的丢包。因此可以在能够足够解决问题的基础上适当减少一下PCM的logging。简单修改QXDM的log mask可以加减logging选项, 如截图:



- 2, 新增vocoder packet logging
 - DSDA - ADSP里的0x1804/0x1805
 - Single voice session架构 - MODEM的0x1914/0x1915

Audio common issues (1)

- 描述 : [MSM8996/8956 + wcd9335/wcd9226] Call mute issue - underflow error on RX
- 复现步骤和现象 :
 - 1. MO make a call to MT
 - 2. When MT accept the call, MO can't hear MT, MT can hear MO.
 - **Doing device switch to speaker and back to receiver can recover voice**
 - 3. Switch MO audio device from receiver to speaker for MO, MO Rx is ok
 - 4. Switch MO audio device from speaker back to receiver, rx is still ok
 - Typical log is
 - 1), <3>[4867.170999] tasha_slimbus_irq: **underflow error on RX port 0, value 6**
 - 2), RX AFE pcm dump is fine
- 基线 : LA.HB.1.1.1, LA.BR.1.3.2, LA.BR.1.3.3, LA.BR.1.3.4
- CR : 947257
- 代码修改 :
 - <https://www.codeaurora.org/cgit/quic/la/kernel/msm-3.10/commit/?id=796a13940b7026dfc41768e377395f098f0beba0>

Audio common issues (2)

- 描述：WCD 9335/WCD9326 HiFi mode headset noise issue
- 复现步骤和现象：
 - 1. Insert a special type headset (type isn't certain)
 - 2. Playing touch key tone
 - Result:
 - 1). the low frequency noise continues till 5 seconds later when digital core power collapses.
 - 2). Disable HiFi mode and enable low power mode, issue gone
- CR：NA
- 代码修改：
 - Please contact our HW CE to review your FM circuit.

Audio common issues (3)

- 描述：WCD9335/WCD9326 Line out speaker + headphone combo device, headset mute issue
- 复现步骤和现象：
 - Precondition: speaker is connected with line out of WCD9335/WCD9326 via analog PA
 - Issue 1,
 - 1, Inserted headset
 - 2, Setting->Sound & notification->Default notification ringtone
 - 3, Click any ringtone item
 - It has sound on both speaker and headphone
 - 4, After the ringtone sound is end, "powering down widget" is called, after a few seconds (less than 5), click the ringtone item again.
 - Result: Headphone no sound, speaker is normal.
 - Issue 2,
 - 1, Inserted headset
 - 2, Setting->Sound & notification
 - 3, Drag and move "Media volume" progress bar, it plays sound from "out_snd_device(8: headphones)", it is always fine.
 - Result: after step 3, no matter in 5 seconds or after 5 seconds, then drag and move "Alarm volume" progress bar, it plays sound from "out_snd_device(10: speaker-and-headphones)", but headphone is muted.
- 基线：MSM8956.LA.1.0, LA.BR.1.3.2, LA.BR.1.3.3, LA.BR.1.3.4
- CR：957405
- 代码修改：
 - <https://www.codeaurora.org/cgit/quic/la/kernel/msm-3.10/commit/?id=fccbafdeebc5e251c1788b450702c9f0bf3b258d>

Audio common issues (4)

- 描述 : MBN SSR can't boot up modem
- 复现步骤和现象 :
 - 1. compile a version with enable micro
MCFG_MODEM_INITIATED_GRACEFUL_RESET_SUPPORT
 - 2. compile a MBN and sign to a tar_ball. and it will generate a tar file including two MBN in it .
 - 3. insert a sim, the MBN does not activate.
- 基线 : MSM8909 etc. LA.BR.1
- CR : 758600
- 代码修改 :
 - <https://www.codeaurora.org/cgit/quic/la/device/qcom/common/commit/?id=3489e66f1ee7bdc77b62ad24fb449c2d03db8def>

Audio common issues (5)

- 描述：按键音播放、音量提示音播放有点破音
- 复现步骤和现象：
 - 1. Play music
 - 2. go to setting -> sound -> media volume, and adjust to minimal to mute
 - 3. press volume UP
 - Result：提示音听起来有点破音
- 基线：M release
- CR：948361
- 代码修改：
 - <https://www.codeaurora.org/cgit/quic/la/platform/hardware/qcom/audio/commit/?id=080c443f42ff1bfae395abdd83a4d639a228e58a>
 - 还有一个新的修改，目前codeaurora还看不见，如果需要可以提case

Audio common issues (6)

- 描述：BT video 快速按暂停播放键问题
- 复现步骤和现象：
 - Issue 1,
 - 1.Play a video.
 - 2.Short press the pause button on a Bluetooth headset. Video will stop.
 - 3.Short press the pause button on a Bluetooth headset . Video did not play, should press the button again after 3 seconds.
 - Issue 2,
 - 1.Phone connect to bluetooth headset LG HBS730
 - 2.Launch video player, select one song to play
 - 3.Launch gallery, select one video to play, pause on Bluetooth headset, but can not pause
- 基线：MSM8976.LA.1.0.1
- CR：NA
- 代码修改：
 - 以上两个问题属于BT相关，如有发现请联系我们BT team

Audio common issues (7)

- 描述：Current increase about 10 ma after NXP smart PA (on Quat I2S) loudspeaker playback
- 复现步骤和现象：
 - 1, boot up device, turn on LCD and measure the current “A”
 - 2, start play a mp3, mp3 will output from loudspeaker
 - 3, stop mp3 playback, keep the LCD on and measure the current, the current increased 10ma than “A”
 - 4, if turn off the LCD, then issue will be gone. If you don't turn off LCD, issue will be there always.
- 基线：MSM8976.LA.1.0
- CR：NA
- 代码修改：
 - It is a I2C issue, need power team to check

Questions?

<https://support.cdmatech.com>