

Figure - Bug #115180

测试 Test-IT # 110961 (New): V2.0功能测试

测试 Test-IT # 112101 (New): AF-V2.0-Launcher/SystemUI-控制中心

【AF】【EVT】【控制中心】点击结束屏幕录制，上划关闭控制中心，此时无法正常关闭，并出现ANR提示

2023-01-09 16:03 - CD TEST-方永红

Status:	CLOSED	Start date:	2023-01-09
Priority:	High	Due date:	2023-02-23
Assignee:	CD Test赵飞	% Done:	100%
Category:	AUDIO-FW	Estimated time:	0.00 hour
Target version:	VC1_FSE_0090_20230411	Found Version:	FlatBuild_HH_VX1_MCE_FSE.M.D.user.01.00.X101.2
Need_Info:	--	Degrated:	--
Resolution:	FIXED	Verified Version:	
Severity:	Critical	Fixed Version:	
Reproducibility:	Every time	Root cause:	配置音频链路到TDM数据
Test Type:	ST		
Description			
【前提条件】			
1、设备已开机			
【测试步骤】			
1、下划打开控制中心			
2、点击屏幕录制			
3、勾选所有选项			
4、下划打开控制中心			
5、点击屏幕录制组件			
6、上划关闭控制中心			
【预期结果】			
5、屏幕录制立马结束			
6、控制中心被关闭			
【实际结果】			
5、视频生成时间较长			
6、无法正常关闭控制中心			
Related issues:			
Related to Figure - Bug # 116843: 【AF】【EVT】【AUDIO】副屏电话会议时...		CLOSED	2023-03-09

History

#1 - 2023-01-11 18:00 - CD FW 曹覃刚

- Due date set to 2023-02-10
- Status changed from New to ASSIGNED

#2 - 2023-01-28 15:52 - CD FW 曹覃刚

- Category changed from CD-FW to AUDIO-FW
- Assignee changed from CD FW 曹覃刚 to CD MM陈海波

Hi 海波

问题原因是因为主线程在操作音频记录停止的方法耗时太久造成，大约十秒，在此期间，做任何的触摸滑动操作都会引起超时无响应
屏幕录制时，不选择录制设备音频和麦克风，问题不会发生

堆栈信息如下

```
android.media.AudioRecord.native_stop(Native method)
-----
"main" prio=5 tid=1 Native | group="main" sCount=1 ucsCount=0 flags=1 obj=0x729355d8 self=0xb4000078c0ed7380 | sysTid=6404 nice=-10 cgrp=default sched=0/0
handle=0x7a8c1b24f8 | state=S schedstat=( 10018571276 1706601634 9501 ) utm=664 stm=337 core=6 HZ=100 | stack=0x7fce163000-0x7fce165000 stackSize=8188KB |
held mutexes=
native: #00 pc 00000000000a1c88 /apex/com.android.runtime/lib64/bionic/libc.so (__ioctl+8)
native: #01 pc 000000000005b8d4 /apex/com.android.runtime/lib64/bionic/libc.so (ioctl+156)
native: #02 pc 0000000000053070 /system/lib64/libbinder.so (android::IPCThreadState::talkWithDriver(bool)+292)
native: #03 pc 00000000000542ac /system/lib64/libbinder.so (android::IPCThreadState::waitForResponse(android::Parcel*, int*)+64)
native: #04 pc 0000000000053ff0 /system/lib64/libbinder.so (android::IPCThreadState::transact(int, unsigned int, android::Parcel const&, android::Parcel*, unsigned
int)+224)
native: #05 pc 000000000004bafc /system/lib64/libbinder.so (android::BpBinder::transact(unsigned int, android::Parcel const&, android::Parcel*, unsigned int)+196)
native: #06 pc 000000000002c744 /system/lib64/audioflinger-aidl-cpp.so (android::media::BpAudioRecord::stop()+684)
native: #07 pc 000000000005296c /system/lib64/libaudioclient.so (android::AudioRecord::stop()+244)
native: #08 pc 000000000016ef28 /system/lib64/libandroid_runtime.so (android_media_AudioRecord_stop(_JNIEnv*, _jobject*)+144)
at android.media.AudioRecord.native_stop(Native method)
at android.media.AudioRecord.stop(AudioRecord.java:1344)
- locked <0x00a06345> (a java.lang.Object)
at com.android.systemui.screenrecord.ScreenInternalAudioRecorder.end(ScreenInternalAudioRecorder.java:291)
at com.android.systemui.screenrecord.ScreenMediaRecorder.stopInternalAudioRecording(ScreenMediaRecorder.java:279)
at com.android.systemui.screenrecord.ScreenMediaRecorder.end(ScreenMediaRecorder.java:272)
at com.android.systemui.screenrecord.RecordingService.stopRecording(RecordingService.java:445)
at com.android.systemui.screenrecord.RecordingService.onStartCommand(RecordingService.java:184)
at android.app.ActivityThread.handleServiceArgs(ActivityThread.java:4640)
at android.app.ActivityThread.access$2000(ActivityThread.java:248)
at android.app.ActivityThread$H.handleMessage(ActivityThread.java:2092)
at android.os.Handler.dispatchMessage(Handler.java:106)
at android.os.Looper.loopOnce(Looper.java:201)
at android.os.Looper.loop(Looper.java:288)
at android.app.ActivityThread.main(ActivityThread.java:7880)
at java.lang.reflect.Method.invoke(Native method)
at com.android.internal.os.RuntimeInit$MethodAndArgsCaller.run(RuntimeInit.java:548)
at com.android.internal.os.ZygoteInit.main(ZygoteInit.java:1009)
-----
```

请帮助分析音频录制结束方法耗时过久的原因，谢谢

#3 - 2023-01-31 09:49 - CD TPM-王祥林
- Assignee changed from CD MM陈海波 to CD BSP何伟

#4 - 2023-02-09 22:21 - CD TPM-王祥林

何伟

接上中控和AMP，安装中控给的临时apk，并且把音源切换到AMP后，再试试这个问题是否复现。

#5 - 2023-02-14 10:55 - CDTS-TEST 周婷
- Due date changed from 2023-02-10 to 2023-02-15

#6 - 2023-02-16 20:07 - CD BSP何伟

- Due date changed from 2023-02-15 to 2023-02-17

音源切换到AMP后，问题依然复现
根据log发现在创建AudioRecord时出了错，getInputForDevice 去打开输入流失败
失败原因时没找到AudioPolicyMix的政策
registerMix(): adding mix for dev=0x8000 addr=-1416755123:ap:0mixp:0
getInputMixForAttr() no policy for address -1416755123:ap:0mixp:0
下一步需要调查policy为什么没匹配上

#7 - 2023-02-17 09:49 - CD TPM-王祥林
- Target version set to VC1_FSE_0078_20230228

#8 - 2023-02-22 10:33 - CDTs-TEST 周婷
- Due date changed from 2023-02-17 to 2023-02-23

#9 - 2023-02-27 09:45 - CD BSP何伟

在执行stop方法时binder超时，因为此时的binder已达到上限15个并被阻塞了，而这15个都是读数据的线程
问题原因就是这些读方法未读到数据被阻塞，导致主线程被阻塞产生ANR
客户端没有读到数据是因为服务端没有写数据成功

#10 - 2023-02-28 14:18 - CDTs-TEST 周婷
- Severity changed from Major to Critical

#11 - 2023-02-28 14:20 - CD TPM-王祥林
- Target version changed from VC1_FSE_0078_20230228 to VC1_FSE_0082_20230314

#12 - 2023-03-07 09:52 - CD TPM-王祥林
- Assignee changed from CD BSP何伟 to CD MM唐驭俊

#13 - 2023-03-07 11:14 - CD TPM-王祥林
- Assignee changed from CD MM唐驭俊 to Multimedia组-RD3_TSCD 梁卿山

#14 - 2023-03-10 14:49 - Multimedia组-RD3_TSCD 梁卿山
- Category changed from AUDIO-FW to BSP
- Assignee changed from Multimedia组-RD3_TSCD 梁卿山 to CD BSP何伟

Hi 何伟
麻烦继续分析，服务端写入数据没有成功的原因，谢谢

#15 - 2023-03-10 18:08 - CD BSP-杜磊
- Assignee changed from CD BSP何伟 to CD BSP-唐金泽

#16 - 2023-03-13 18:32 - CD BSP何伟

当开始录制时，systemui会创建客户端record线程并实例化AudioRecord
在AudioRecord创建的时候，使用的音源是AUDIO_SOURCE_REMOTE_SUBMIX
音频数据的传输使用的是MonoPipe和MonoPipeReader，MonoPipeReader消费MonoPipe的数据

在结束录制时产生ANR是由stop方法binder超时产生，因为此时binder数达到上限15，且都为读线程
我这调查到此时正好在执行 primary-hal/hal/audio_hw.c:in_read -> pcm_read 在等待中

----- Waiting Channels: pid 1301 at 2023-02-13 15:07:46.182444270+0800 -----

Cmd line: /system/bin/mediaserver

```
sysTid=1301 binder_thread_read
sysTid=1389 binder_thread_read
sysTid=1804 binder_thread_read
sysTid=1805 binder_thread_read
sysTid=1810 binder_thread_read
sysTid=1811 binder_thread_read
sysTid=1856 binder_thread_read
sysTid=1869 binder_thread_read
sysTid=2957 futex_wait_queue_me
sysTid=2963 futex_wait_queue_me
sysTid=2964 __arm64_compat_sys_nanosleep
sysTid=3327 binder_thread_read
sysTid=3512 binder_thread_read
sysTid=3534 binder_thread_read
sysTid=3641 binder_thread_read
sysTid=3645 binder_thread_read
sysTid=3664 binder_thread_read
sysTid=4429 futex_wait_queue_me
sysTid=4430 futex_wait_queue_me
sysTid=4633 binder_thread_read
----- end 1301 -----
```

另外在结束录制时会报以下错误，错误是参数无效，可能也与binder有关，具体原因未知：

```
02-08 05:44:51.146 1013 1338 W APM_AudioPolicyMix: getInputMixForAttr() no policy for address -1416755123:ap:0mixp:0
02-08 05:44:51.146 1013 1338 W APM_AudioPolicyManager: getInputForAttr could not find input mix for attr { Content type:
AUDIO_CONTENT_TYPE_UNKNOWN Usage: AUDIO_USAGE_UNKNOWN Source: AUDIO_SOURCE_REMOTE_SUBMIX Flags: 0x800 Tags:
addr=-1416755123:ap:0mixp:0 }
02-08 05:44:51.146 1013 1338 E AudioFlinger: createRecord() getInputForAttr return error -22
02-08 05:44:51.146 1960 4236 E AudioRecord: createRecord_(40): AudioFlinger could not create record track, status: -22
02-08 05:44:51.147 1960 4236 W AudioRecord: restoreRecord_(40): failed status -22, retries 2
02-08 05:44:51.217 1314 4089 I OMX-VENC: venc_dev: stats: avg. fps 43.28, bitrate 1377652
01-01 08:14:32.513 0 0 I : boot log copy done
02-08 05:44:51.647 1960 4236 I BpBinder: onLastStrongRef automatically unlinking death recipients: <uncached descriptor>
02-08 05:44:51.664 1013 1338 W APM_AudioPolicyMix: getInputMixForAttr() no policy for address -1416755123:ap:0mixp:0
02-08 05:44:51.664 1013 1338 W APM_AudioPolicyManager: getInputForAttr could not find input mix for attr { Content type:
AUDIO_CONTENT_TYPE_UNKNOWN Usage: AUDIO_USAGE_UNKNOWN Source: AUDIO_SOURCE_REMOTE_SUBMIX Flags: 0x800 Tags:
addr=-1416755123:ap:0mixp:0 }
02-08 05:44:51.664 1013 1338 E AudioFlinger: createRecord() getInputForAttr return error -22
02-08 05:44:51.665 1960 4236 E AudioRecord: createRecord_(40): AudioFlinger could not create record track, status: -22
02-08 05:44:51.665 1960 4236 W AudioRecord: restoreRecord_(40): failed status -22, retries 1
```

其他信息：

录制mic加屏幕，结束录制时不会产生ANR

录制系统内部音加屏幕，结束录制时会产生ANR（卡顿时间大概4-5秒）

三者同时录制，结束时会产生ANR（卡顿时间10秒，pcm_read的等待时间为10秒）

#17 - 2023-03-17 15:20 - IoT scm

Gerrit Merge Information :

ID	Project	Branch	Uploader
186682	general/platform/hardware/qcom/audio	Pre_figure_turbox-c2130c-la1.1-vendor-dev	tangjz1204@thundersoft.com
BSP:Audio: Change PRI_TDM_RX&TX Route(2/2)1.Add PRI_TDM_RX config to every path_router2.Change audio-record-voip mixer_path3.Change audio-playback-voip mixer_pathTC-RID: 1201-0101104IssueID: TS-R-DF-115180Change-Id: lfe8a2a0b3dfe99a232cd16f3ae196515932eea58			

#18 - 2023-03-17 15:22 - IoT scm

Gerrit Merge Information :

ID	Project	Branch	Uploader
187460	general/platform/vendor/opensource/audio-kernel	Pre_figure_turbox-c2130c-la1.1-vendor-dev	tangjz1204@thundersoft.com
BSP:Audio: Change MultiMedia10 backend path(1/2)change MultiMedia10 backend TX pathTC-RID: 1201-0101104IssueID: TS-R-DF-115180Change-Id: lb55e3a811f6be7b4986e8fdd43efb3ff313ce383			

#19 - 2023-03-17 15:24 - CD BSP-唐金泽

- Status changed from ASSIGNED to RESOLVED
- Assignee changed from CD BSP-唐金泽 to CD TEST-方永红
- Resolution changed from -- to FIXED
- Root cause set to 配置音频链路到TDM数据

配置音频链路到TDM数据；
梳理音频链路配置；
为音频链路和TDM配置相匹配。

#20 - 2023-03-17 15:34 - CD BSP-唐金泽

- File 录屏没有音频数据.jpg added

Hi，永红，
请帮忙连接好中控台架，使用最新更新的中控版本进行测试；
若情况复现，帮忙看下几率。
有可能还有相关问题：

- 1、录屏的文件是否含带音频数据
- 2、音频比特率是否为0等；入附图。

#21 - 2023-03-20 16:33 - CD TEST-方永红

- Assignee changed from CD TEST- 方永红 to CD Test赵飞

#22 - 2023-03-20 18:02 - CD Test赵飞

- File 音频比特率为空.png added
- Status changed from RESOLVED to ASSIGNED
- Assignee changed from CD Test赵飞 to CD BSP- 唐金泽

副屏版本：3/19号DB
中控版本：60
副屏连接中控的情况下，此问题仍然复现，复现概率：5/5
查看录制的视频文件，音频比特率为空，见附件截图

#23 - 2023-03-23 14:03 - CDTS_TEST 王成

- Target version changed from VC1_FSE_0082_20230314 to VC1_FSE_0086_20230328

#24 - 2023-03-28 18:22 - CD BSP-唐金泽

- Target version changed from VC1_FSE_0086_20230328 to VC1_FSE_0090_20230411

还依赖于Qualcomm这边CASE提供思路

#25 - 2023-04-03 15:21 - CD BSP-唐金泽

- Category changed from BSP to AUDIO-FW
- Status changed from ASSIGNED to RESOLVED
- Assignee changed from CD BSP-唐金泽 to CD Test赵飞

请使用2023-04-03以后DB进行验证

#26 - 2023-04-04 10:53 - CD Test赵飞

- Status changed from RESOLVED to VERIFIED
- % Done changed from 0 to 100

验证版本：FlatBuild_HH_MCE_FSE.M.R.user.01.00.0088.C102
验证结果：PASS

#27 - 2023-04-04 10:54 - CD Test赵飞

- Status changed from VERIFIED to CLOSED

Files			
Phone-STS40X190122 2023-01-09 15-43-13.mp4	35.6 MB	2023-01-09	CD TEST-方永红
tlog_sts40x190122_002_0108053633.tar.gz	11.8 MB	2023-01-09	CD TEST-方永红
录屏没有音频数据.jpg	105 KB	2023-03-17	CD BSP-唐金泽
音频比特率为空.png	29 KB	2023-03-20	CD Test赵飞