

Figure - Bug #116609

【BSP】【EVT3】【ST】【Audio】副屏多媒体播放时，此时中控去播放，中控发送onAudioFocusChange为loss的通知到副屏，副屏会发送三次abandonAudioFocus到中控

2023-02-28 19:59 - 移动测试一组_CDTs 刘强

Status:	CLOSED	Start date:	2023-02-28
Priority:	High	Due date:	
Assignee:	CD Test赵飞	% Done:	100%
Category:	AUDIO-FW	Estimated time:	0.00 hour
Target version:		Found Version:	0068
Need_Info:	--	Degrated:	--
Resolution:	FIXED	Verified Version:	FlatBuild_HH_MCE_FSE.M.R.user.01.00.0084C101(X
Severity:	Major	Fixed Version:	2023-03-22
Reproducibility:	Every time	Root cause:	该问题在最新版本不发生
Test Type:	ST		
Description			
现象： 副屏多媒体播放时，此时中控去播放，中控发送onAudioFocusChange为loss的通知到副屏，副屏会发送三次abandonAudioFocus到中控 预期结果： 副屏只接收通知，一次abandonAudioFocus都不发送			

History

- #1 - 2023-03-06 11:08 - CD TPM-王祥林
- Category changed from BSP to AUDIO-FW
- #2 - 2023-03-07 09:51 - CD TPM-王祥林
- Assignee changed from CD BSP何伟 to CD MM唐驭俊
- #3 - 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
- #4 - 2023-03-09 17:33 - Multimedia组-RD3_TSCD 梁卿山

HI ALL,

■ 我的分析

6203:03-01 19:05:54.370 1067 1602 D AudioIDCMicroNegotiator: idcm_af:onAudioFocusStateChanged type=AudioFocus_Media, result = AUDIOFOCUS_LOSS
timeout= false

第一次

6213:03-01 19:05:54.376 1884 3028 V PlayerBase: TS >>> baseStop() piid=295
6214:03-01 19:05:54.376 1884 3028 E PlayerBase: TS >>> playerEvent
...
6225:03-01 19:05:54.378 1067 1602 D AudioIDCMicroNegotiator: idcm_af:abandonIDCMicroAudioFocus: AudioFocus_Media
6226:03-01 19:05:54.378 1067 1602 D AudioIDCMicroNegotiator: idcm_common:requestResult method = abandonAudioFocus parameters =
{\"functionInfo\":{\"IDCM_AudioFocus\":\"AudioFocus_Media\"}}

第二次

6238:03-01 19:05:54.391 3658 3674 V PlayerBase: TS >>> baseStop() piid=311
6239:03-01 19:05:54.391 3658 3674 E PlayerBase: TS >>> playerEvent
...
6617:03-01 19:05:55.001 1067 1602 D AudioIDCMicroNegotiator: idcm_af:abandonIDCMicroAudioFocus: AudioFocus_Media

```
6618:03-01 19:05:55.002 1067 1602 D AudioIDCMicroNegotiator: idcm_common:requestResult method = abandonAudioFocus parameters =
{"functionInfo":{"IDCM_AudioFocus":"AudioFocus_Media"}}
```

第三次

```
6594:03-01 19:05:54.991 3658 3658 V PlayerBase: TS >>> baseStop() piid=311
6595:03-01 19:05:54.991 3658 3658 E PlayerBase: TS >>> playerEvent
...
6667:03-01 19:05:55.616 1067 1969 D AudioIDCMicroNegotiator: idcm_af:abandonIDCMicroAudioFocus: AudioFocus_Media
6669:03-01 19:05:55.616 1067 1969 D AudioIDCMicroNegotiator: idcm_common:requestResult method = abandonAudioFocus parameters =
{"functionInfo":{"IDCM_AudioFocus":"AudioFocus_Media"}}
```

根据以上日志，我们判断到，当中控屏主动发送AUDIOFOCUS_LOSS后，副屏会释放焦点，并且停止所有播放器播放，而当应用调用MediaPlayer、SoundPool的stop方法时会触发playerevent，进而调用到PlaybackActivityMonitor.requestAudioFocusToIDCM中，由于当前调用了stop三次，导致AudioIDCMicroNegotiator.abandonIDCMicroAudioFocus也被调用了三次。

■ 下一步

当前需要方案去优化这个问题，但是我们认为至少需要abandonIDCMicroAudioFocus被调用一次，否则中控无法知道副屏是否已经没有播放音频。

#5 - 2023-03-09 20:12 - Multimedia组-RD3_TSCD 梁卿山

Hi ALL,

■ 我的分析

当前已经找到了方案，可以只在该场景下副屏调用一次abandonAudioFocus，具体方案提交如下：

```
diff --git a/services/core/java/com/android/server/audio/AudioIDCMicroNegotiator.java b/services/core/java/com/android/server/audio/AudioIDCMicroNegotiator.java
index 58c70afea063..1b4319df4f17 100644
--- a/services/core/java/com/android/server/audio/AudioIDCMicroNegotiator.java
+++ b/services/core/java/com/android/server/audio/AudioIDCMicroNegotiator.java
@ -480,6 +480,10 @ public class AudioIDCMicroNegotiator {
    return mSource;
}

+   public int getIDCMicroAudioFocusState() {
+       return mFocusState;
+   }
+
}

    public int requestIDCMicroAudioFocus(AudioAttributes aa, RequestInfosToIDCM info) {
@ -516,7 +520,8 @ public class AudioIDCMicroNegotiator {
    }

    public int abandonIDCMicroAudioFocus(String source) {
-       if (source != null && source.equals(mAudioFocusHandler.getIDCMicroAudioFocus())){
+       if (source != null && source.equals(mAudioFocusHandler.getIDCMicroAudioFocus())
+           && mAudioFocusHandler.getIDCMicroAudioFocusState() != AudioManager.AUDIOFOCUS_REQUEST_FAILED){
            return abandonIDCMicroAudioFocus();
        }
        return AudioManager.AUDIOFOCUS_REQUEST_FAILED;
    }
}
```

■ 下一步

测试该方案其他影响，还有该方案是否中控可以接受。

#6 - 2023-03-10 17:41 - Multimedia组-RD3_TSCD 梁卿山

Hi All,

今天和中控沟通，以下场景也需要考虑，所以方案还需要完善。

- 1.副屏播放音乐结束后 → 此时需要通知主屏abandonaudiofocus
- 2.主屏打电话通知副屏焦点失去 → 此时不需要通知主屏abandonaudiofocus
- 3.主屏电话结束会告知副屏重新获得焦点 → 不需要通知主屏requestaudiofocus

#7 - 2023-03-20 18:23 - Multimedia组-RD3_TSCD 梁卿山

- Status changed from New to NEED_INFO

- Assignee changed from Multimedia组-RD3_TSCD 梁卿山 to CD Test赵飞

Hi 赵飞

■ 现状

- 1.上面提到的别的场景，已经出了新的PRD，将在票116966 中对应
- 2.当前最新版本该问题已经被修复，不再发多次的abandonAudioFocus，请帮忙确认一下，谢谢！

确认方法：

前提，中控和副屏连接正常

- 1.副屏播放音乐
- 2.中控再去播放音乐
- 3.观察副屏日志输出，是否有多次的abandonAudioFocus的输出。

如下内容：

03-12 01:53:52.154 1049 1738 I MicroServiceManager: requestResult(abandonAudioFocus) parameters is{"functionInfo":{"IDCM_AudioFocus":"AudioFocus_Media"}}.

日志筛选命令

adb logcat |grep -Ei "abandonAudioFocus"

或

adb shell

logcat |grep -Ei "abandonAudioFocus"

#8 - 2023-03-21 14:14 - CD Test赵飞

- File logcat.txt added

- Status changed from NEED_INFO to ASSIGNED

- Assignee changed from CD Test赵飞 to Multimedia组-RD3_TSCD 梁卿山

3/21号release版本验证，副屏音乐播放中，中控播放音乐，日志中没有abandonAudioFocus的输出

日志见附件

#9 - 2023-03-22 09:54 - Multimedia组-RD3_TSCD 梁卿山

- Status changed from ASSIGNED to RESOLVED

- Assignee changed from Multimedia组-RD3_TSCD 梁卿山 to CD Test赵飞

- Resolution changed from -- to FIXED

Hi 赵飞

该问题经过确认，不再发生，请关票，谢谢！

#10 - 2023-03-22 14:59 - CD Test赵飞

- Status changed from RESOLVED to VERIFIED
- % Done changed from 0 to 100
- Verified Version set to FlatBuild_HH_MCE_FSE.M.R.user.01.00.0084.C101(X101)

#11 - 2023-03-22 14:59 - CD Test赵飞

- Status changed from VERIFIED to CLOSED

#12 - 2023-03-22 16:16 - Multimedia组-RD3_TSCD 梁卿山

- Fixed Version set to 2023-03-22
- Root cause set to 该问题在最新版本不发生

Files			
logcat.txt	4.17 MB	2023-03-21	CD Test赵飞