

Can't disconnect and communicate with BLE MIDI device.

+1 7

Hotlists (6)

Mark as Duplicate



Comments (5) Dependencies Duplicates (1) Blocking (0) Resources (5)

Fixed Bug P2 + [AOSP] assigned Platform

STATUS UPDATE No update yet. Edit

DESCRIPTION yu...@gmail.com created issue #1

Description

Android 13 can't correctly disconnect and communicate with BLE MIDI device after some steps.

Are you an Android developer? (Y/N)

Y

Build number

TP1A.220624.021.A1

Is this a regression from Android 12?

Yes.

The previous version, Android12, can connect and disconnect correctly.

What device are you using?

Google Pixel 6a

What are the steps to reproduce the problem?

The problem will be demonstrated via popular debug application. Moreover, a similar problem is confirmed in another App using android.media.midi API

- Requirements
 - Apps
 - MIDI BLE Connect App : to connect BLE MIDI by using Android.media.midi API
 - MidiScope App : to check receiving MIDI Message
 - github repo
 - Bluetooth LE MIDI device
 - Device is in bondable mode
 - ex.)YAMAHA YDS-150, KORG nanoKONTROL Studio
 - Before you start following steps, you must reboot your Android13 device.
 - It needs to exclude effect of cache.

(First time)

step1. Launch MIDI Connect App, scan and connect Bluetooth MIDI Device that has not yet been paired.

- * Connection is successful and bonded. (Pairing Request dialog appeared)
- * In this case, we could confirm receiving a MIDI message from the device by using MIDI Scope App.

step2. Tap the "X" button at the trailing of the device list to disconnect the MIDI device.

(Second time)

step3. Scan and connect the MIDI device again.

- * Connection is successful. (Pairing Request dialog has not appeared)
- * In this case, we could confirm receiving a MIDI message from the device by using MIDI Scope App.

step4. Tap the "X" button, but we cannot disconnect the MIDI device.

- * We had to turn off the MIDI device itself to disconnect.

(Third time)

step5. Scan and connect the MIDI device again.

- * At first glance, the connection was successful. (Bluetooth LED lamp stay lit)
- * However, it can't communicate even though you send and receive MIDI messages.

Issue Category

Framework(platform)

What was the expected result?

Connect and disconnect from BLE MIDI Device at any time.

Can you provide the API document where this expected behavior is explained?

android.media.midi API

https://developer.android.com/reference/kotlin/android/media/midi/package-summary?hl=en

This symptom is only confirmed by the app using Android.media.midi API. There is a suspicious comment at [line 812 in Midiservice.java](#). In this source file, there are many differences bet

Relevant logcat output.

It seems that the process of BLE MIDI connection is changed a lot. Here are log messages when connected to the BLE MIDI device, respectively.

- Android12

```
2022-09-01 13:55:04.520 1172-4204/? W/ContextImpl: Calling a method in the system process without a qualified user: android.app.ContextImpl.bindService:1911
2022-09-01 13:55:04.567 26509-26509/? I/GoogleInputMethodService: GoogleInputMethodService.onStartInput():1956 onStartInput(EditorInfo{inputType=0x0(NULL) im
2022-09-01 13:55:04.873 7870-7997/? D/BluetoothMidiDevice: Connected to GATT server.
2022-09-01 13:55:04.874 7870-7997/? D/BluetoothMidiDevice: Attempting to start service discovery:true
2022-09-01 13:55:04.965 11320-11338/com.mobileer.example.midibtblepairing D/OpenGLRenderer: endAllActiveAnimators on 0x75c67c3190 (ListView) with handle 0x74d
2022-09-01 13:55:04.976 1172-1755/? W/InputManager-JNI: Input channel object '25cb61d com.mobileer.example.midibtblepairing/com.mobileer.example.midibtblepairi
2022-09-01 13:55:06.290 7870-7997/? D/BluetoothMidiDevice: found MIDI_SERVICE
2022-09-01 13:55:06.290 7870-7997/? D/BluetoothMidiDevice: found MIDI_CHARACTERISTIC
2022-09-01 13:55:06.292 7870-7997/? D/BluetoothMidiDevice: requestConnectionPriority(CONNECTION_PRIORITY_HIGH):true
2022-09-01 13:55:06.391 10251-10251/? D/BluetoothPairingService: Show pairing notification for (YDS-150 MIDI)
2022-09-01 13:55:09.835 26509-26509/? I/GoogleInputMethodService: GoogleInputMethodService.onStartInput():1956 onStartInput(EditorInfo{inputType=0x0(NULL) im
2022-09-01 13:55:10.499 10251-10251/? D/BluetoothPairingService: onReceive() Bond state change : 12, device name : YDS-150 MIDI
2022-09-01 13:55:10.549 7870-7997/? D/BluetoothMidiDevice: onCharacteristicRead 0
2022-09-01 13:55:10.551 7870-7997/? D/BluetoothMidiDevice: writeDescriptor returned true
2022-09-01 13:55:11.259 11320-11320/com.mobileer.example.midibtblepairing D/BluetoothAdapter: stopLeScan()
2022-09-01 13:55:11.260 11320-11320/com.mobileer.example.midibtblepairing D/BluetoothAdapter: scan not started yet
```

• Android13


```
2022-09-01 12:54:26.994 1273-2614/? D/MidiService: openBluetoothDevice()
2022-09-01 12:54:26.994 1273-2614/? I/MidiService: alloc device...
2022-09-01 12:54:26.994 1273-2614/? I/MidiService: device: Device Info: null Status: null UID: 10078 DeviceConnection count: 0 mServiceConnection: null
2022-09-01 12:54:26.994 1273-2614/? I/MidiService: addDeviceConnection() [C] device:Device Info: null Status: null UID: 10078 DeviceConnection count: 0 mServ
2022-09-01 12:54:26.994 1273-2614/? D/MidiService.Client: addDeviceConnection() device:Device Info: null Status: null UID: 10078 DeviceConnection count: 0 mS
2022-09-01 12:54:26.994 1273-2614/? D/MidiService.Device: addDeviceConnection() [A] connection:null
2022-09-01 12:54:26.994 1273-2614/? D/MidiService.Device: mServer:null
2022-09-01 12:54:26.994 1273-2614/? I/MidiService.Device: ++++ B
2022-09-01 12:54:26.994 1273-2614/? W/ContextImpl: Calling a method in the system process without a qualified user: android.app.ContextImpl.bindService:1950
2022-09-01 12:54:27.011 1273-1617/? I/ActivityManager: Start proc 7868:com.android.bluetoothmidiservice/u0a78 for service {com.android.bluetoothmidiservice/c
2022-09-01 12:54:27.055 1273-1273/? I/MidiService.Device: ++++ onServiceConnected() mBluetoothDevice:CB:81:F4:6F:55:75
2022-09-01 12:54:27.055 1273-1273/? I/MidiService.Device: ++++ mBluetoothMidiService:android.media.midi.IBluetoothMidiService$Stub$Proxy@4d817c5
2022-09-01 12:54:27.055 1273-1273/? W/Binder: Outgoing transactions from this process must be FLAG_ONEWAY
    java.lang.Throwable
        at android.os.BinderProxy.transact(BinderProxy.java:545)
        at android.media.midi.IBluetoothMidiService$Stub$Proxy.addBluetoothDevice(IBluetoothMidiService.java:123)
        at com.android.server.midi.MidiService$Device$1.onServiceConnected(MidiService.java:488)
        at android.app.LoadedApk$ServiceDispatcher.doConnected(LoadedApk.java:2188)
        at android.app.LoadedApk$ServiceDispatcher$RunConnection.run(LoadedApk.java:2221)
        at android.os.Handler.handleCallback(Handler.java:942)
        at android.os.Handler.dispatchMessage(Handler.java:99)
        at android.os.Looper.loopOnce(Looper.java:201)
        at android.os.Looper.loop(Looper.java:288)
        at com.android.server.SystemServer.run(SystemServer.java:964)
        at com.android.server.SystemServer.main(SystemServer.java:649)
        at java.lang.reflect.Method.invoke(Native Method)
        at com.android.internal.os.RuntimeInit$MethodAndArgsCaller.run(RuntimeInit.java:548)
        at com.android.internal.os.ZygoteInit.main(ZygoteInit.java:914)
2022-09-01 12:54:27.066 1273-1273/? I/MidiService.Device: setDeviceServer()
2022-09-01 12:54:27.067 1273-1273/? D/MidiService.DeviceConnection: notifyClient
2022-09-01 12:54:28.474 1273-3156/? D/MidiService: openBluetoothDevice()
2022-09-01 12:54:28.474 1273-3156/? I/MidiService: alloc device...
2022-09-01 12:54:28.474 1273-3156/? I/MidiService: device: Device Info: MidiDeviceInfo[mType=3,mInputPortCount=1,mOutputPortCount=1,mProperties=Bundle[{name=
2022-09-01 12:54:28.474 1273-3156/? I/MidiService: addDeviceConnection() [C] device:Device Info: MidiDeviceInfo[mType=3,mInputPortCount=1,mOutputPortCount=1,
2022-09-01 12:54:28.475 1273-3156/? D/MidiService.Client: addDeviceConnection() device:Device Info: MidiDeviceInfo[mType=3,mInputPortCount=1,mOutputPortCount
2022-09-01 12:54:28.475 1273-3156/? D/MidiService.Device: addDeviceConnection() [A] connection:2
2022-09-01 12:54:28.475 1273-3156/? D/MidiService.Device: mServer:android.media.midi.IMidiDeviceServer$Stub$Proxy@1685994
2022-09-01 12:54:28.475 1273-3156/? I/MidiService.Device: ++++ A
2022-09-01 12:54:28.475 1273-3156/? D/MidiService.DeviceConnection: notifyClient
```

COMMENTS

 **pa...@google.com** <pa...@google.com>
Assigned to pa...@google.com.

 **pa...@google.com** <pa...@google.com> #2

Thank you for reporting this issue. We've shared this with our product and engineering teams and will continue to provide updates as more information becomes available.

 **ad...@google.com** <ad...@google.com>
Reassigned to ra...@google.com.

 **ph...@google.com** <ph...@google.com> #3

Thanks for reporting this.
We believe we have found the root cause.
It was a regression from S to T.
The fix is small and will likely appear in a future update for TM.



ra...@google.com <ra...@google.com> [#4](#)

Marked as fixed.

The development team has fixed the issue that you have reported and it will be available in a future build.



ph...@google.com <ph...@google.com> [#5](#)

The fix was in TM QPR2 "TQ2A".
If you see the problem in that or later version please let us know.