📁 Android Public Tracker > Media   274741604 ▾

← ⟳ ☆   Bluetooth track changed updates playback state, but does not notify of the update   +1 ¹   Hotlists (4)   Mark as Duplicate   🔔 ⋮

Comments (2)   Dependencies   Duplicates (0)   Blocking (0)   Resources (2)

Assigned   Bug   P2   + Add Hotlist   [AOSP] assigned

👥 **STATUS UPDATE** No update yet.   Edit

📄 **DESCRIPTION** gr...@gtempaccount.com created issue #1   Mar 23, 2023 05:42AM   ⋮

Short Summary

Bluetooth can receive a track changed notification from Bluetooth JNI that also updates the playback state. In this scenario, Bluetooth does not send a playback state change notification.

Detailed Description

When the current track changes from a paired Bluetooth device acting as a source, `btavrcp_track_changed_callback()` (Bluetooth JNI method from *packages/apps/Bluetooth/jni/com_android_bluetooth_avrcp_controller.cpp*) is called. This callback passes the new track to Bluetooth's `ArvcpControllerService`. Specifically, it's `onTrackChanged()` method. The `onTrackChanged()` method then sends a message to the `AvrcpControllerStateMachine`. The state machine tells the `AvrcpPlayer` to update the current track via its `updateCurrentTrack()` method.

The `AvrcpPlayer.updateCurrentTrack()` method also updates the player's playback state, but this update is not forwarded to the `MediaSession` via a call to `BluetoothMediaBrowserService.notifyChanged(PlaybackStateCompat)`. This is a problem because it is possible for the connected device to trigger the `btavrcp_track_changed_callback` at the JNI level after any playback state changes or playback position changes (both of which do result in a playback state change notification propagating to the Android media framework).

Applications rely on these playback state changes to be able to retrieve information. In particular, this is problematic because applications must use the `PlaybackState` object to retrieve the activeQueueItemId (https://developer.android.com/reference/android/media/session/PlaybackState#getActiveQueueItemId()) in order to determine the index of the media item to highlight within a UI list.

Bluetooth's processing when the current track changes updates Bluetooth's internal `PlaybackState` object, but the `AvrcpControllerStateMachine` does not update the `MediaSession` that `BluetoothMediaBrowserService` owns with the new state.

Potential Solution

Bluetooth's `AvrcpControllerStateMachine`'s handling of `MESSAGE_PROCESS_TRACK_CHANGED` (handled in the Connected state) should be updated. After https://android.googlesource.com/platform/packages/apps/Bluetooth/+/master/src/com/android/bluetooth/avrcpcontroller/AvrcpControllerStateMachine.java#531, the following change could be made to solve this issue:

```
if (track != null) {
    PlaybackStateCompat playbackState = mAddressedPlayer.getPlaybackState();
    BluetoothMediaBrowserService.notifyChanged(playbackState);
}
```

COMMENTS   All comments ▾   ↓ Oldest first

○ **vi...@google.com** <vi...@google.com> #2   Mar 24, 2023 12:07AM   ⋮

Assigned to vi...@google.com.

We have shared this with our product and engineering team and will update this issue with more information as it becomes available.

Reporter	○ gr...@gtempaccount.com
Type	Bug
Priority	P2
Severity	S2
Status	Assigned
Access	Default access View
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