📁 Android Public Tracker > Framework   214270558 ▾

← ↻ ☆   App crash of UnsatisfiedLinkError,dlopen failed: "xxx/libmmkv.so has bad ELF magic: 00000000"   +1 ² | Hotlists (7) | Mark as Duplicate 🔔 ⋮

Comments (12)   Dependencies   Duplicates (1)   Blocking (0)   Resources (7)

[Fixed] Bug P3 (+)   [AOSP] assigned

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

📄 **DESCRIPTION** li...@xiaomi.com created issue #1

Hi we got some user feedback of app crash, from bugreport it seems like PackageManagerService derive native libs failed issue.

```
01-12 11:05:05.978  1000  1501  2527 I am_crash: [7267,0,com.xiaomi.market:guard,949501637,java.lang.UnsatisfiedLinkError,dlopen failed: "/data/app/^^2x5tvrc
01-12 11:07:39.335  1000  1501  4565 I am_crash: [8392,0,com.xiaomi.market,949501637,java.lang.UnsatisfiedLinkError,dlopen failed: "/data/app/^^2x5tvrchxfZq4
01-12 11:07:40.669  1000  1501  4390 I am_crash: [8438,0,com.xiaomi.market,949501637,java.lang.UnsatisfiedLinkError,dlopen failed: "/data/app/^^2x5tvrchxfZq4
01-12 11:07:42.338  1000  1501  4571 I am_crash: [8674,0,com.xiaomi.market,949501637,java.lang.UnsatisfiedLinkError,dlopen failed: "/data/app/^^2x5tvrchxfZq4
01-12 11:15:42.868  1000  1501  4564 I am_crash: [9723,0,com.xiaomi.market,949501637,java.lang.UnsatisfiedLinkError,dlopen failed: "/data/app/^^2x5tvrchxfZq4
01-12 11:16:08.575  1000  1501  4394 I am_crash: [10294,0,com.xiaomi.market,949501637,java.lang.UnsatisfiedLinkError,dlopen failed: "/data/app/^^2x5tvrchxfZq
01-12 11:16:09.756  1000  1501  4564 I am_crash: [10329,0,com.xiaomi.market,949501637,java.lang.NoClassDefFoundError,<clinit> failed for class com.xiaomi.mar
01-12 11:16:10.901  1000  1501  2135 I am_crash: [10397,0,com.xiaomi.market,949501637,java.lang.NoClassDefFoundError,<clinit> failed for class com.xiaomi.mar
01-12 11:16:11.690  1000  1501  4564 I am_crash: [10433,0,com.xiaomi.market,949501637,java.lang.UnsatisfiedLinkError,dlopen failed: "/data/app/^^2x5tvrchxfZq
01-12 11:18:45.551  1000  1501  4564 I am_crash: [11065,0,com.xiaomi.market,949501637,java.lang.UnsatisfiedLinkError,dlopen failed: "/data/app/^^2x5tvrchxfZq
```

```
Package [com.xiaomi.market] (29139a9):
    userId=10130
    pkg=Package{91d3b2e com.xiaomi.market}
    codePath=/data/app/^^2x5tvrchxfZq4p6uj3BQNg==/com.xiaomi.market-k_zG13209bIR55ZEZxa6ww==
    resourcePath=/data/app/^^2x5tvrchxfZq4p6uj3BQNg==/com.xiaomi.market-k_zG13209bIR55ZEZxa6ww==
    legacyNativeLibraryDir=/data/app/^^2x5tvrchxfZq4p6uj3BQNg==/com.xiaomi.market-k_zG13209bIR55ZEZxa6ww==/lib
```

From the on-site phone, we pulled the libmmkv.so from native libs dir. The file size is ok, but its content all filled by 0x00. I'm pretty sure the libmmkv.so stored in apk is ok, but after installing and

And in Xiaomi device, we observed its repdocued in any android versions, from 9.0 to 12.0

Also in other manufacture device, there are a lot of user feedbacks with similar issue.

https://www.giters.com/Tencent/MMKV/issues/789

https://www.oneplusbbs.com/archiver/?tid-5752546.html

https://answers.ea.com/t5/Bug-Reports/Bug-after-update/td-p/10072932

I think this may be a android bug of very low probability recurrence, I don't known how to reproduce and location and fix. Please help to give some suggestions. Thanks.

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✓ Links (4)

🔗 **Links (4)**

"https://www.giters.com/Tencent/MMKV/issues/789"
"https://www.oneplusbbs.com/archiver/?tid-5752546.html"
"https://answers.ea.com/t5/Bug-Reports/Bug-after-update/…"
"The CL may fix it. https://android-review.googlesource.com/c/platform/frameworks/base/+/22523…"

COMMENTS

⚪ **vi...@google.com** <vi...@google.com>

   Assigned to an...@google.com.

⚪ **an...@google.com** <an...@google.com> #2

   Thank you for reporting this issue. For us to further investigate this issue, please provide the following additional information:

   Have you observe this issue on Pixel devices as well.

vi...@google.com <vi...@google.com> #3

Please share the information requested in above comment, to proceed further.

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li...@xiaomi.com <li...@xiaomi.com> #4

No，the issue is an occasional problem, so I can't observe on Pixel device.

And if I can reproduce it all the time, maybe I have already fixed it and upstream.

Please give some suggestions for the next investigation.

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vi...@google.com <vi...@google.com> #5

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

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en...@google.com <en...@google.com> #6

Status: Won't Fix (Infeasible)

seems like a hardware issue unless proven otherwise, so i think that's one to raise internally at xiaomi...

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li...@xiaomi.com <li...@xiaomi.com> #7

Did you really make detailed analysis for the issue really? Why you think this is one to raise internally at xiaomi.

The same issue can reproduced at other manufactures, like Huawei, Oneplus, Honor.

Obviously, this is a low probability bug of Android itself when update app in PackageManagerService.

https://www.giters.com/Tencent/MMKV/issues/789 https://www.oneplusbbs.com/archiver/?tid-5752546.html https://answers.ea.com/t5/Bug-Reports/Bug-after-update/td-p/10072932

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en...@google.com <en...@google.com> #8

> Did you really make detailed analysis for the issue really? Why you think this is one to raise internally at xiaomi.

because it looks like bad flash.

> Obviously, this is a low probability bug of Android itself when update app in PackageManagerService.

maybe, yes, but we'd need some data to back that up. without any evidence for that, it seems far more likely to be bad flash.

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li...@xiaomi.com <li...@xiaomi.com> #9

Hi, I found some new clues for this issue.

If we enforce restart the device after install some apks with jni lib, then the filesystem hasn't sync to storage. There is a low probability of file corruption issue. And with xiaomi device, we car

The CL may fix it. https://android-review.googlesource.com/c/platform/frameworks/base/+/2252338

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en...@google.com <en...@google.com>

Status: Assigned (reopened)

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pa...@google.com <pa...@google.com> #10

Marked as fixed.

Since that fix has merged and we don't have any other leads, let's mark this resolved for now.

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ch...@duolingo.com <ch...@duolingo.com> #11

Hello, Replying here b/c we're also running into a similar crash but with the rLottie library. Here's the stack trace:

```
 Caused by java.lang.UnsatisfiedLinkError: dlopen failed: "/data/app/~~N1ZZ36IwUnUEdOTUuFTbIg==/com.duolingo-z4S9Q6bU1BpHPTgOwTKqQg==/lib/arm64/librlottie.
        at java.lang.Runtime.load0(Runtime.java:929)
        at java.lang.System.load(System.java:1625)
        at com.getkeepsafe.relinker.SystemLibraryLoader.loadPath(SystemLibraryLoader.java:31)
        at com.getkeepsafe.relinker.ReLinkerInstance.loadLibraryInternal(ReLinkerInstance.java:204)
        at com.getkeepsafe.relinker.ReLinkerInstance.loadLibrary(ReLinkerInstance.java:136)
        at com.getkeepsafe.relinker.ReLinker.loadLibrary(ReLinker.java:70)
        at com.getkeepsafe.relinker.ReLinker.loadLibrary(ReLinker.java:51)
        at com.aghajari.rlottie.AXrLottie.init(AXrLottie.java:75)
```

We've not been able to repro this on our end, but according to crashlytics, this has also happened on pixel devices (e.g., Pixel 3 XL or Pixel 4) for Android versions 11-13. We're also seeing it o

My main source of confusion is why we're performing a dlopen on /lib/arm64/librlottie.so since I would have expected it to use /lib/arm64-v8a/librlottie.so instead. This seems to be potentia

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en...@google.com <en...@google.com> #12

do you actually still need relinker? (do you support api levels < 23?)