

← ↻ ☆ Still unable to get USB Video device permission on Android 10

+1102

Hotlists (5)

Mark as Duplicate





Comments (67)

Dependencies

Duplicates (2)

Blocking (0)

Resources (13)

WAI


Bug

P2

+ Add Hotlist


App Compatibility

[AOSP] assigned

 STATUS UPDATE

No update yet.

Edit

 DESCRIPTION

sh...@gmail.com created issue #1

We have pushed about this issue on Android 10 beta but it still exist on Android 10 final release.
<https://issuetracker.google.com/issues/139087809>

When we call UsbManager.requestPermission on Android 10, it shows nothing. But it can popup USB permission dialog on Android 9. We have add Camera permission on AndroidManifest.xml. A

The attachment contains two apps can reproduce this issue on Android 10. The app "USBCamera-target-API-27.apk" can pop up USB permission dialog normally when you connect USB camera d

But when you use "USBCamera-target-API-28.apk" it shows nothings. And the logcat will say "UsbUserSettingsManager: Camera permission required for USB video class devices" although this ap

We test it on Pixel XL and we also provide Bug report. But this issue seems appear on all Android 10 devices. e.g. Bliss-v12.1, a Android 10 x86 based system.

Android Developers documents shows that app needs CAMERA permission to visit USB video device when it runs on Android 9 and later. But app still can't get USB permission to access USB vid

 deleted

0 B



 deleted

0 B



✓ Mentioned issues (1)

✓ Links (10)

 Mentioned issues (1)

P3


[Android Q Beta] Unable to get USB Video device permission


"<https://issuetracker.google.com/139087809>"

 Links (10)

"[https://developer.android.com/reference/android/hardware/usb/UsbManager.html#requestPermission\(android.hardware.usb.UsbDevi...](https://developer.android.com/reference/android/hardware/usb/UsbManager.html#requestPermission(android.hardware.usb.UsbDevi...)"

"This issue can be fixed by adding the patch <https://android-review.googlesource.com/c/platform/frameworks/base/+1193928>"


"As stated previously,  [the fix](#) is available starting with the tag android-10.0.0_30, but is not included in any security patches* (because it's not a security concern). So if a manufacturer initially relea

"Refer to the section "Source code tags and builds" in the page  [Codenames, Tags, and Build Numbers](#)"

"<https://docs.google.com/document/d/1xen6NDCRRZ0r8JQCULc5espKqG2sp89JZQG-Nc9IEr4/edi...> (Gmail)"

See all related links


COMMENTS



am...@google.com

<am...@google.com>

Assigned to am...@google.com.




am...@google.com

<am...@google.com>

#2

Thank you for the reminder about the report. We are following up about this with our development team.



vi...@gmail.com


<vi...@gmail.com>

#3

I face this problem also and I found that in below link:
[https://developer.android.com/reference/android/hardware/usb/UsbManager.html#requestPermission\(android.hardware.usb.UsbDevice,%20android.app.PendingIntent\)](https://developer.android.com/reference/android/hardware/usb/UsbManager.html#requestPermission(android.hardware.usb.UsbDevice,%20android.app.PendingIntent))

"Permission for USB devices of class UsbConstants#USB_CLASS_VIDEO for clients that target SDK Build.VERSION_CODES.P and above can be granted only if they have additionally the Mani

So that I add the "Manifest.permission.CAMERA" into my manifest and ask user to agree the permission. And then it works with API 28. Please try.



sh...@gmail.com

<sh...@gmail.com>

#4

It works for Android 9 ONLY. It unable to grant USB permission on Android 10. See my description for more detail.



op...@gmail.com

<op...@gmail.com>

#5

I thought there is a quick fix for this problem - just set targetSdkVersion to 27, but Google Play Console doesn't allow to upload such APK anymore: "Upload failed. Your app currently targets / there is currently no solution at all, please increase the bug priority!"

sh...@gmail.com <sh...@gmail.com> #6

I build a Pixel XL ROM from source android-10.0.0_r20 and debug. Then I found something interesting.

When App target to API 28 and above. The function 'private boolean isCameraPermissionGranted(String packageName, int uid)' in file 'services/usb/java/com/android/server/usb/UsbUserService' That is because line 150 'mUserContext.checkCallingPermission(android.Manifest.permission.CAMERA)' always return PackageManager.PERMISSION_DENIED;

```
private boolean isCameraPermissionGranted(String packageName, int uid) {
    int targetSdkVersion = android.os.Build.VERSION_CODES.P;
    try {
        ApplicationInfo aInfo = mPackageManager.getApplicationInfo(packageName, 0);
        // compare uid with packageName to foil apps pretending to be someone else
        if (aInfo.uid != uid) {
            Slog.i(TAG, "Package " + packageName + " does not match caller's uid " + uid);
            return false;
        }
        targetSdkVersion = aInfo.targetSdkVersion;
    } catch (PackageManager.NameNotFoundException e) {
        Slog.i(TAG, "Package not found, likely due to invalid package name!");
        return false;
    }

    if (targetSdkVersion >= android.os.Build.VERSION_CODES.P) {
        int allowed = mUserContext.checkCallingPermission(android.Manifest.permission.CAMERA);
        if (android.content.pm.PackageManager.PERMISSION_DENIED == allowed) {
            Slog.i(TAG, "Camera permission required for USB video class devices");
            return false;
        }
    }

    return true;
}
```

The result of 'pid != Process.myPid()' (In file 'core/java/android/app/ContextImpl.java' line 1863) always false in function 'checkCallingPermission'.

This line is in function:

```
@Override
public int checkCallingPermission(String permission) {
    if (permission == null) {
        throw new IllegalArgumentException("permission is null");
    }

    int pid = Binder.getCallingPid();
    if (pid != Process.myPid()) {
        return checkPermission(permission, pid, Binder.getCallingUid());
    }
    return PackageManager.PERMISSION_DENIED;
}
```

So that means Binder.getCallingPid() is equal with Process.myPid() and the function always return PackageManager.PERMISSION_DENIED; .

And why Binder.getCallingPid() is equal with Process.myPid()? I think I have found the answer.

This function is in file 'services/usb/java/com/android/server/usb/UsbService.java' line 350 .

```
@Override
public boolean hasDevicePermission(UsbDevice device, String packageName) {
    final int uid = Binder.getCallingUid();
    final int userId = UserHandle.getUserId(uid);

    final long token = Binder.clearCallingIdentity();
    try {
        return getSettingsForUser(userId).hasPermission(device, packageName, uid);
    } finally {
        Binder.restoreCallingIdentity(token);
    }
}
```

It calls 'Binder.clearCallingIdentity();' which will make Binder.getCallingPid() equal with Process.myPid().

SO whether or not Camera permission is added, USB permission will never be granted.

I found the function has been changed since 'a2c6eea Require permission to read USB device's serial number. by Philip P. Moltmann · 1 year, 4 months ago'

The attachments contain more debug infos.

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0 B 

sh...@gmail.com <sh...@gmail.com> #7

This issue can be fixed by adding the patch <https://android-review.googlesource.com/c/platform/frameworks/base/+1193928>

Test it on Pixel XL with AOSP tags android-10.0.0_r25 and android-10.0.0_r20.



he...@gmail.com <he...@gmail.com> [#8](#)

We have a custom usb camera, with a custom usb app and hundreds of users. Our users on Android 10 cannot use the app anymore. Since Play store won't allow us to target SDK 27 there is I can't understand why this is not getting more attention?



re...@gmail.com <re...@gmail.com> [#9](#)

This issue is also important for my team. Please work on it and solve asap.



fr...@500k.com.br <fr...@500k.com.br> [#10](#)

This is also important for us. Approximately 3.000 users have been affected by this issue. We are about to lose 2 contracts if we don't find an alternative.



st...@gmail.com <st...@gmail.com> [#11](#)

Also affecting our application - hopefully Google will choose lower the Google Play requirements to 27 - I see no way to make sure all the android 10 devices will be updated with the fix.



st...@gmail.com <st...@gmail.com> [#12](#)

Hi Guys, small update about the issue - I see this patch was applied in android-10.0.0_r30 here: [abe984f550e6](#) (Nov 13 15:47:42 2019 -0800) - and already available on my Pixel 4 with latest s



sh...@gmail.com <sh...@gmail.com> [#13](#)

Yes, now this issue can be fixed by the March 2020 Android security patch (2020-03-05 patch level).



ge...@gmail.com <ge...@gmail.com> [#14](#)

Is there any workaround if the phone my app is running on doesn't have the latest security update ?



ma...@gmail.com <ma...@gmail.com> [#15](#)

hi, we had already installed the Android security patch May 5th, 2020. but we also have this issue on my ASUS ZenPhone5Z ASUS_Z01RD(android-10) .
can anyone tell us how to fix it, thanks.



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ma...@gmail.com <ma...@gmail.com> [#16](#)

We have seen that the security patch released in March(2020-03-05) solved the problem for some devices(such as Pixel series). May I ask when will you release a security patch that can sol



[Deleted User] <[Deleted User]> [#17](#)

Hi, Is this issue solved, In OnePlus7T with latest security patch(2020-05-01), it is not working
Do we have any solution for this, guys please help



ma...@gmail.com <ma...@gmail.com> [#18](#)

Hi, Is this issue solved, In many devices (Sony, Sharp, Samsung, Oppo, Huawei, LG, ASUS) , these are not working.
May I ask when will you release a security patch that can solve this problem on these devices?



he...@slickorange.co.za <he...@slickorange.co.za> [#19](#)

I have a Xiaomi Mi A2 which is on the Android One program - My app is still not working, even on this device with "stock" Android.
I know moaning is not going to help but this is not great, what makes it even worse is that this issue was reported during Beta but simply ignored.



bi...@gmail.com <bi...@gmail.com> [#20](#)

nassime



op...@gmail.com <op...@gmail.com> [#21](#)

The problem is not solved. USB permission dialog still not appears on some devices even with recent security patch. Example: Motorola Moto g7 plus XT1965-3, Android 10, Security update:



da...@gmail.com <da...@gmail.com> [#22](#)

We're reliant on this for running medical imaging devices, it's vitally important for us that this gets fixed.

ni...@gmail.com <ni...@gmail.com> [#23](#)

Seen this on every device I have running Android 10. Why has such useful and basic support stayed broken for so long?

st...@gmail.com <st...@gmail.com> [#24](#)

Guys,

I don't think Google can do anything with devices of other manufactures. They merged the patch to android 10 branch and Pixel 4 & Samsung Galaxy S10 (but not S10+) already got the update

So it's better to address those questions to the devices manufacturers than post here - that will be much effective.

Thank you

am...@google.com <am...@google.com> [#25](#)

Hi,

Could you please check with the latest Android release and share the status and reports?

je...@gmail.com <je...@gmail.com> [#26](#)

Just to elaborate on this: there are two different things at play here: AOSP version and security patches.

As stated previously, [the fix](#) is available starting with the tag `android-10.0.0_30`, but is not included in any security patches* (because it's not a security concern). So if a manufacturer is on `10.0.0_30`.

The reason why it works for Google Pixel series is because Google publishes updates that include the latest versions of the AOSP (`>= android-10.0.0_30`), not just security patches.

Conclusion: just ignore the security patch level, this is not the important information. What really matters is the tag of the AOSP used.

*: Earlier this year I checked that none of the security patches from November 2019 to April 2020 included the fix. Newer patches could include it.

kr...@bandyer.com <kr...@bandyer.com> [#27](#)

Hi,

That sure clears out why it's still broken on other manufacturers.

For my company use case is important to have this working.

Is there a fix that we can employ in such cases, even something in JNI? Because we all know the manufacturers will not update soon their devices if they ever will do it.

st...@gmail.com <st...@gmail.com> [#28](#)

Hi,

I tried to prepare a workaround, but found it's impossible with following the Android security model - the OS just not notifying the application (you can check the patch for more information) as

Workarounds:

* Downgrade the application AndroidManifest.xml `android:targetSdkVersion` to 27 - will not allow to upload to google play due to their security restrictions, but at least you could send apk to internal

* Probably the workaround could be prepared for rooted devices, just put newly connected usb devices to rw mode. Not great for customers.

Hopefully this will help.

lu...@gmail.com <lu...@gmail.com> [#29](#)

Does not work yet for me on galaxy note 10 plus. How do I know what version of AOSP am I running?

ma...@gmail.com <ma...@gmail.com> [#30](#)

These are not working.

Sharp Android One S3

Sharp Android One S5

Sharp Android One S7

Sharp Android One X4

Sharp AQUOS R Compact

Sharp AQUOS R2

Sharp AQUOS R2 compact

Sharp AQUOS R3

Sharp AQUOS R5G

Sharp AQUOS sense3

Sharp AQUOS sense3 plus sound

Sharp AQUOS zero

Sharp AQUOS zero2

guys please help.



je...@gmail.com <je...@gmail.com> [#31](#)

How do I know what version of AOSP am I running?

For Pixel devices:

1. Go to Android settings -> About phone -> Build number
2. The build number looks something like QP1A.192005.007.A3 (this is the build number of my Pixel XL (1st gen) as of 2020/04/20)
3. Refer to the section "*Source code tags and builds*" in the page [↪ Codenames, Tags, and Build Numbers](#)
4. Look for your build number in the list
5. If the corresponding tag to your build number is `>= android-10.0.0_r30`, the phone has the fix. Otherwise it does not
6. For instance, my Pixel XL's build number QP1A.192005.007.A3 maps to `android-10.0.0_r17`: the bug is still there

For other manufacturers, I guess it depends of their branch management.



di...@gmail.com <di...@gmail.com> [#32](#)

Спасибо, установил 27ой, камера заработал.



el...@gmail.com <el...@gmail.com> [#33](#)

Downgrading all of my customers devices now. Waiting is no longer an option.



ch...@google.com <ch...@google.com> [#34](#)

Hello team,

Friendly ping. Please let us know if there is any update for the issue.

Thanks.



ez...@gmail.com <ez...@gmail.com> [#35](#)

Google Play limit Target Version To 29 and it makes the bug more seriesly



zi...@gmail.com <zi...@gmail.com> [#36](#)

https://docs.google.com/document/d/1xen6NDCRRZ0r8JQCULc5espKqG2sp89JZQG-Nc9IEr4/edit?usp=drive_web (Gmail)



op...@gmail.com <op...@gmail.com> [#37](#)

I suppose there will be no important updates for this issue anymore.

1. Google already fixed this bug in some revision of Android 10.
 2. If the manufacturer performs complete Android updates, your device must get this fix and work properly.
 3. If the manufacturer performs only security updates, your device can get this fix only after updating to Android 11.
- So it depends totally from manufacturers now, not from Google.



sh...@gmail.com <sh...@gmail.com> [#38](#)

Well, Google has bring the issue back on android-10.0.0_r46, so it seems the issue unable to be fixed on Android 10.



tb...@gmail.com <tb...@gmail.com> [#39](#)

Can someone confirm whether this issue affects Camera2 API also? I want to purchase some high end USB cameras, but if they are not usable on Android, even with Camera2 API, then it wo



je...@gmail.com <je...@gmail.com> [#40](#)

To [↪ #38](#):

Well, Google has bring the issue back on android-10.0.0_r46, so it seems the issue unable to be fixed on Android 10.

Indeed it's possible to check that the latest tags for Android 10 published on [↪ Codenames, Tags, and Build Numbers](#) do not have the fix. I checked whether the fix is present for all the tags

1. All tags before `android-10.0.0_r30`: absent
2. All tags between `android-10.0.0_r30` and `android-10.0.0_r45`: present
3. All tags between `android-10.0.0_r46` and `android-security-10.0.0_r50` (the last one at the moment): absent

The last tags do not have it because they are only backports of security patches (this can be checked in [↪ Android Security Backport Released](#)). They probably are based on a tag older than



ya...@gmail.com <ya...@gmail.com> [#41](#)

As someone mentioned before, the patch to fix this issue was reverted in the tag android-10.0.0_r46, from tag android-security-10.0.0_r48 to android-security-10.0.0_r54 are security release : I just notice the patch was included again in android-11.0.0_r1 and it's also present in the current latest version android-11.0.0_r37.

Tags a builds:

<https://source.android.com/setup/start/build-numbers#source-code-tags-and-builds>

Fix commit:

<https://cs.android.com/android/+/android/platform/frameworks/base/+f7824ac70d3f6d731576b1d7d6172eb3a9ea0921>

kj...@gmail.com <kj...@gmail.com> [#42](#)

What is the point of a beta release if they don't fix showstopper bugs that are identified in it?

am...@google.com <am...@google.com> [#43](#)

@shenya..

Could you please let us know the current issue status with the new release "11.0.0 (RQ3A.210605.005, Jun 2021)" as we don't see the issue with this?
Just for reference, here is the images link : <https://developers.google.com/android/images>

ad...@google.com <ad...@google.com> [#44](#)

Please provide the information requested in [comment #43](#)

kj...@gmail.com <kj...@gmail.com> [#45](#)

We need a fix for 10.x, not 11.x. Fix it in 10.x and lean hard on carriers to push the fix to all devices.

ad...@google.com <ad...@google.com> [#46](#)

We are still waiting for information requested in [comment #43](#)

kj...@gmail.com <kj...@gmail.com> [#47](#)

Again, that request is irrelevant. We need a backport fix for deployed 10.x devices. By refusing to fix major issues in deployed versions, Google increases risks for commercial customers and

na...@gmail.com <na...@gmail.com> [#48](#)

Any updates on this issue? It seems like it's completely ignored...

ma...@gmail.com <ma...@gmail.com> [#49](#)

Thank You

jc...@gmail.com <jc...@gmail.com> [#50](#)

I don't understand much of what has been posted here. All I know is I have a Galaxy S9+ running android 10, up to date with the latest os provided by Samsung. USB camera/software will no

kj...@gmail.com <kj...@gmail.com> [#51](#)

TL;DR: Google didn't fix the issue when it was identified in the Android 10 beta. They didn't fix it after it was widely deployed. Now they're talking about fixing it in Android 11 instead. Time to

ad...@google.com <ad...@google.com> [#52](#)

Please share the following info :

1. Camera app info. Is it downloaded from Google play or developed by you (provide more details)?
2. Build version on Pixel phone, the current build version with which you are facing the issue. Please provide bug report if available.
3. Other phone OEMs (if any) with which you are facing the issue.

kj...@gmail.com <kj...@gmail.com> [#53](#)

Irrelevant. The issue was already identified and fixed. Backport the fix and push it to ALL 10.x devices. At your expense if necessary.

de...@dentulu.com <de...@dentulu.com> [#54](#)

From November 2021, we must target to SDK level 30, so any update on this issue?



am...@google.com <am...@google.com> [#55](#)

This should work on newer Android Version

Based on the info from SDK Platform release notes (<https://developer.android.com/studio/releases/platforms>)

The API level 30 is Android 11.

We checked with the Sharp sense5G(Android 11) & Samsung S20(Android 11) then downloading the Camera APP(USB Camera) from google play, the USB camera works. So the intended behavior is USB camera can work in Android 11(API level 30).



kj...@gmail.com <kj...@gmail.com> [#56](#)

Unacceptable. You will fix all Android 10 devices in the wild.



am...@gmail.com <am...@gmail.com> [#57](#)

Usb camera unlocked



vi...@google.com <vi...@google.com> [#58](#)

Status: Won't Fix (Intended Behavior)

We have looked into the issue you have reported and would like to inform that this is working as intended. The USB camera can work in Android 11 (API level 30) and the fix is not available for



kj...@gmail.com <kj...@gmail.com> [#59](#)

Bullshit. Fix it in Android 10 and lean on carriers to deploy the fix to all Android 10 devices in the wild at Google's expense.



ha...@gmail.com <ha...@gmail.com> [#60](#)

Please help me



is...@gmail.com <is...@gmail.com> [#61](#)

D



is...@gmail.com <is...@gmail.com> [#62](#)

Fuuufudy



ad...@gmail.com <ad...@gmail.com> [#63](#)

مش شغالين عندي في برنامج يعرض صوت من غير صورة usb camra و Esay cap برنامج



be...@gmail.com <be...@gmail.com> [#64](#)

Connect the camera to android10 phone



ha...@gmail.com <ha...@gmail.com> [#65](#)

Unacceptable. You will fix all Android 10 devices in the wild.



ba...@gmail.com <ba...@gmail.com> [#66](#)

cdlm google!



ja...@gmail.com <ja...@gmail.com> [#67](#)

Jaydeep