📁 Android Public Tracker > Treble   112603782 ▾

← C ☆ tombstoned is unable to cleanup stale ANR traces under /data/anr/   (+1)¹ Hotlists (6) Mark as Duplicate 🔔 ⋮

Comments (9)   Dependencies   Duplicates (1)   Blocking (0)   Resources (3)

[Obsolete] Bug P2 (+) [AOSP] assigned

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

📄 **DESCRIPTION** sh...@snapchat.com created issue #1   Aug 15, 2018 11:41AM   ⋮

I have Pixel2 that runs android 8.1.0. This version doesn't write ANR dumps to /data/anr/traces.txt as it was on older platforms, instead each time some app is requested to dump its JVM - tombstoned creates entry named /data/anr/trace_XX and passes writable descriptor to the dumpee process.
This works well until there are less that 64 existing trace files. I.e. it tries to remove and recreate trace_00 if trace_63 exists.
And the problem is that tomstoned is unable to unlink that stale trace_00. As result ANR dump goes to logcat, so it can not be later sent to Play Console and shared with app developer.

Here are contents of /data/anr/:

```
walleye:/ $ ls -lZ /data/anr/
total 3216
-rw------- 1 system     system u:object_r:anr_data_file:s0 635657 2018-07-13 15:09 anr_2018-07-13-15-09-03-436
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  43388 2018-08-14 16:24 trace_00
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  41103 2018-07-27 18:35 trace_01
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  45743 2018-07-27 18:46 trace_02
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  44931 2018-07-27 18:47 trace_03
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  45282 2018-07-27 18:47 trace_04
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  43726 2018-07-27 18:47 trace_05
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  44350 2018-07-27 18:47 trace_06
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  45160 2018-07-27 18:47 trace_07
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  45160 2018-07-27 18:47 trace_08
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  43736 2018-07-27 18:47 trace_09
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  43737 2018-07-27 18:47 trace_10
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  45164 2018-07-27 18:47 trace_11
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  43739 2018-07-27 18:47 trace_12
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  45793 2018-07-27 18:47 trace_13
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  45166 2018-07-27 18:47 trace_14
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  44368 2018-07-27 18:47 trace_15
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  43741 2018-07-27 18:47 trace_16
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  43541 2018-07-27 18:47 trace_17
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  45167 2018-07-27 18:47 trace_18
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  44422 2018-07-27 18:48 trace_19
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  44423 2018-07-27 18:48 trace_20
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  44370 2018-07-27 18:48 trace_21
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  43743 2018-07-27 18:48 trace_22
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  45170 2018-07-27 18:48 trace_23
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  45173 2018-07-27 18:48 trace_24
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  45173 2018-07-27 18:48 trace_25
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  45072 2018-07-27 18:48 trace_26
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0      0 2018-07-27 18:55 trace_27
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0      0 2018-07-27 18:58 trace_28
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0      0 2018-07-27 18:58 trace_29
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0      0 2018-07-27 18:58 trace_30
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0      0 2018-07-27 18:58 trace_31
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0      0 2018-07-27 18:58 trace_32
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0      0 2018-07-27 18:58 trace_33
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0      0 2018-07-27 18:58 trace_34
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0      0 2018-07-27 18:58 trace_35
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0      0 2018-07-27 18:58 trace_36
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0      0 2018-07-27 18:58 trace_37
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  42316 2018-08-03 23:15 trace_38
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  40723 2018-08-03 23:17 trace_39
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  42308 2018-08-03 23:19 trace_40
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  42023 2018-08-03 23:19 trace_41
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  42731 2018-08-03 23:19 trace_42
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  43568 2018-08-03 23:19 trace_43
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0      0 2018-08-03 23:22 trace_44
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  43077 2018-08-03 23:27 trace_45
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  40603 2018-08-03 23:30 trace_46
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  40795 2018-08-03 23:33 trace_47
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  45859 2018-08-03 23:37 trace_48
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  46856 2018-08-03 23:44 trace_49
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  44334 2018-08-03 23:44 trace_50
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  44777 2018-08-03 23:44 trace_51
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  44928 2018-08-03 23:46 trace_52
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  44323 2018-08-03 23:46 trace_53
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  44787 2018-08-03 23:47 trace_54
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  44832 2018-08-03 23:48 trace_55
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  40784 2018-08-03 23:50 trace_56
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0  39149 2018-08-03 23:50 trace_57
```

Reporter	◯ sh...@
Type	Bug
Priority	P2
Severity	S2
Status	[Won't fix]
Access	Default a
Expanded Access ⑦	
Assignee	◯ jm...@
Verifier	--
Collaborators	👥
CC	🔔
	an...@go
	na...@go
	sh...@sn
AOSP ID	--
ReportedBy	--
Found In	--
Targeted To	--
Verified In	--
In Prod	◯

```
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0 45770 2018-08-03 23:53 trace_58
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0 42824 2018-08-14 17:22 trace_59
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0 44250 2018-08-14 17:22 trace_60
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0 44308 2018-08-14 17:33 trace_61
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0 45465 2018-08-14 17:33 trace_62
-rw-r----- 1 tombstoned system u:object_r:anr_data_file:s0 43956 2018-08-14 17:34 trace_63
```

And here is what I see in logcat when send SIGQUIT to my app:

```
08-14 18:22:38.035  8539  8545 I zygote  : Thread[3,tid=8545,WaitingInMainSignalCatcherLoop,Thread*=0xe9fdac00,peer=0x13840150,"Signal Catcher"]: reacting
to signal 3
08-14 18:22:38.035  8539  8545 I zygote  :
08-14 18:22:38.098  6208  6208 I /system/bin/tombstoned: received crash request for pid 8539
08-14 18:22:38.098  6208  6208 F /system/bin/tombstoned: tombstoned.cpp:119] failed to unlink tombstone at /data/anr/trace_01: Permission denied
08-14 18:22:38.098  6208  6208 E /system/bin/tombstoned: received fatal signal 6
08-14 18:22:38.094  6208  6208 W tombstoned: type=1400 audit(0.0:2238): avc: denied { unlink } for name="trace_01" dev="sda45" ino=3145739
scontext=u:r:tombstoned:s0 tcontext=u:object_r:anr_data_file:s0 tclass=file permissive=0
08-14 18:22:38.099  8539  8545 E libc   : received DumpRequest response packet of incorrect length (expected 12, got 0)
08-14 18:22:38.099  8539  8545 I zygote  :
08-14 18:22:38.099  8539  8545 I zygote  : ----- pid 8539 at 2018-08-14 18:22:38 -----
08-14 18:22:38.099  8539  8545 I zygote  : Cmd line: com.looksery.core.sample.debug
08-14 18:22:38.099  8539  8545 I zygote  : Build fingerprint: 'google/walleye/walleye:8.1.0/OPM2.171026.006.C1/4769658:user/release-keys'
08-14 18:22:38.099  8539  8545 I zygote  : ABI: 'arm'
08-14 18:22:38.099  8539  8545 I zygote  : Build type: optimized
08-14 18:22:38.099  8539  8545 I zygote  : Zygote loaded classes=5027 post zygote classes=1227
08-14 18:22:38.099  8539  8545 I zygote  : Intern table: 44248 strong; 180 weak
08-14 18:22:38.099  8539  8545 I zygote  : JNI: CheckJNI is on; globals=701 (plus 46 weak)
```

Is there any way to force system to clean all that stale files?

✓ Links (3)   Hide all

"Here are reports from two different devices: https://drive.google.com/drive/folders/1hMgEL-bnax6TlqAKBA0KjEQU7Pmp3MeT "   sh...@ #3
" …bout that. This was fixed in P by https://android.googlesource.com/platform/system/sepolicy/+/fde3e6a0f72452c2b6c9b1da9777e60b27c3d8ea"   jm...@ #5
"This actually regressed in O MR1: https://android.googlesource.com/platform/system/core/+log/oreo-mr1-release/debuggerd/tombstoned"   jm...@ #7

COMMENTS   All comments ▾   ↓ Oldest first

○ **ad...@google.com** <ad...@google.com>   Aug 16, 2018 08:19PM

   Assigned to ad...@google.com.

○ **ad...@google.com** <ad...@google.com> #2   Aug 16, 2018 10:18PM ⋮

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

   Frequency
   How frequently does this issue occur? (e.g 100% of the time, 10% of the time)

   Android bug report
   After reproducing the issue, press the volume up, volume down, and power button simultaneously. This will capture a bug report on your device in the "bug
   reports" directory. Attach the bug report file to this issue.

   Alternate method:
   After reproducing the issue, navigate to developer settings, ensure 'USB debugging' is enabled, then enable 'Bug report shortcut'. To take bug report, hold
   the power button and select the 'Take bug report' option.

   Please upload the files to Google Drive and share the folder to android-bugreport@google.com, then share the link here.

○ **sh...@snapchat.com** <sh...@snapchat.com> #3   Aug 17, 2018 04:20AM ⋮

   Thanks for the response.

   It is always reproducible, just continue send SIGQUITs to app to get 64 trace files generated. On next attempt it will fail
   Here are reports from two different devices: https://drive.google.com/drive/folders/1hMgEL-bnax6TlqAKBA0KjEQU7Pmp3MeT
   Let me know if you have any problems with access.

○ **ad...@google.com** <ad...@google.com> #4   Aug 17, 2018 10:05PM ⋮

   We have passed this to the development team and will update this issue with more information as it becomes available.

○ **en...@google.com** <en...@google.com>   Aug 18, 2018 03:06AM

   Reassigned to jm...@google.com.

○ **jm...@google.com** <jm...@google.com> #5   Aug 21, 2018 11:32AM ⋮

Sorry about that. This was fixed in P by https://android.googlesource.com/platform/system/sepolicy/+/fde3e6a0f72452c2b6c9b1da9777e60b27c3d8ea

Unfortunately, I don't think there's a way to actually get out of this state, short of wiping data or upgrading to P.

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en...@google.com <en...@google.com> #6   Aug 21, 2018 02:32PM ⋮

shuralnik: can you confirm that you ran one of the betas/developer previews, and got into this state from that?

---

jm...@google.com <jm...@google.com> #7   Aug 21, 2018 04:17PM ⋮

This actually regressed in O MR1: https://android.googlesource.com/platform/system/core/+log/oreo-mr1-release/debuggerd/tombstoned

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na...@google.com <na...@google.com> #8   Aug 21, 2018 06:34PM ⋮

This is also not an issue for system initiated ANRs (i.e, files that start with "anr_") , those are cleaned up by the system_server.

It's only problematic for developer initiated or app initiated ANRs, i.e, where the developer sends a SIGQUIT to a process via the shell, or if the process signals itself.

---

sh...@snapchat.com <sh...@snapchat.com> #9   Aug 22, 2018 03:23AM ⋮

> shuralnik: can you confirm that you ran one of the betas/developer previews, and got into this state from that?

No, as I mentioned in description that was OTA updated system, version 8.1.0. I think you may find detailed info in bugreports I've attached earlier. Meanwhile I've just rechecked with P - it is not reproducible anymore. Thanks for explaining!

Also just a matter of interest - what was the motivation to change architecture in O and to not append to /data/anr/traces.txt as it was earlier?
> It's only problematic for developer initiated or app initiated ANRs, i.e, where the developer sends a SIGQUIT to a process via the shell, or if the process signals itself.
Another question - what is the purpose of these files taking into account that system-detected ANRs go to "anr_*" and APK user can not read "trace_XX" that he had initiated?

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jm...@google.com <jm...@google.com>   Jul 24, 2020 10:11AM

Status: Won't Fix (Obsolete)