



Comments (13)DependenciesDuplicates (1)Blocking (0)Resources (3)

AssignedBugP3+ [AOSP] assigned

 STATUS UPDATE No update yet. Edit

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

Nov 11, 2020 01:58PM

The search speed of the linked list used in the native library on my pixel 2 was more than 2x slower on Android 11 compared to Android 10.

I can't guess what caused this to happen, so I ask for help here.

It has 450,000 nodes, and the code is as follows.

```
struct Node {
    char data[33];
    Node *next;
}

bool list_search(char *data) {
    Node temp = NULL;
    temp = Node_Header;

    while (NULL != temp) {
        if (strcmp(data, temp->data) == 0) {
            return true;
        }

        temp = temp->next;
    }

    return false;
}
```

✓ Links (3)Hide all

Links (3)


"For steps to capture a bug report, please refer: <https://developer.android.com/studio/debug/bug-report#bugreportdevice>"am...@ #2

" <https://drive.google.com/drive/folders/1d7qA8opxQFMdPG-kWjreaK-vTDPm...>"ky...@ #3

" ..., i'll have a look later this week. in the meantime, you might find <https://developer.android.com/studio/profile/android-profiler> usef..."en...@ #11

COMMENTS

All commentsOldest first

 am...@google.com <am...@google.com> #2

Nov 11, 2020 07:05PM

Assigned to am...@google.com.

Thank you for the report.

\*Can you please let us know how this behavior is tested?


\*Did you use any sample apk to test the behavior, if so, please share the apk and share the steps that we can use to replicate the issue and how to make out the wrong behavior from the apk

\*Please share the bugreport too.

Android bug report (to be captured after reproducing the issue)  
For steps to capture a bug report, please refer: <https://developer.android.com/studio/debug/bug-report#bugreportdevice>

Alternate method  
Navigate to "Developer options", ensure "USB debugging" is enabled, then enable "Bug report shortcut". Capture bug report by holding the power button and selecting the "Take bug report" option.

Note: Please upload the files to google drive and share the folder to [android-bugreport@google.com](mailto:android-bugreport@google.com), then share the link here.

 ky...@gmail.com <ky...@gmail.com> #3

Nov 12, 2020 05:24PM

Reporter ky...@gmail.com

Type Bug

Priority P3

Severity S3

Status Assigned

Access Default access View

Assignee en...@google.com

Verifier --

Collaborators

CC an...@google.com  
ky...@gmail.com  
ma...@google.com

AOSP ID --

ReportedBy Developer

Found In --

Targeted To --

Verified In --

In Prod

\* Bug Report And Sample files.  
<https://drive.google.com/drive/folders/1d7qA8opxQFMdPG-kWjreaK-vTDPm7Fhc?usp=sharing>

\* How to run sample app  
Just press "LINKEDLIST" button.  
then your will see result on the screen with time.

I shared screenshot too.  
Pixel2\_Android11.jpg  
Nexus5\_Android8.1.jpg

Pixel2  
- OS : Android 11  
- Build : RP1A.201005.004

Nexus 5X  
- OS : Android 8.1.0  
- Build : OPM7.181205.001

This screenshot is the result of running the test app, and you can see that the Pixel2 took longer than the Nexus 5X.

I previously tested on Android 9, 10 and 11 versions with a Pixel2 and got the slowest results on Android 11.

\*\* sorry for my bad english

Thank you.



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

Nov 13, 2020 01:31AM

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.



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

Nov 13, 2020 05:54AM

A quick question: Does the regression scale with the number of nodes in the search, i.e. it gets slower compared to Android 10 the more nodes you add?



**ky...@gmail.com** <ky...@gmail.com> [#6](#)

Nov 13, 2020 12:31PM

Here is my test data

Device : Pixel 2  
Android 10 Build : QQ3A.200805.001

Node Count	R	Q
100,000	11ms	1ms
200,000	21ms	2ms
300,000	32ms	3ms
400,000	45ms	4ms
500,000	53ms	5ms
600,000	66ms	6ms
700,000	73ms	6ms
800,000	87ms	7ms
900,000	101ms	8ms
1,000,000	109ms	9ms



**ma...@google.com** <ma...@google.com> [#7](#)

Nov 14, 2020 10:36AM

Thank you, that helps narrow down where the problem may be. Just to be clear, the app isn't reloaded within each test, right?



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

Nov 16, 2020 11:21AM

I changed the app slightly so that I could set the number of iterations.  
and each test, I deleted it from the recent list and ran the app again.



**en...@google.com** <en...@google.com> [#9](#)

Nov 17, 2020 05:36AM

*Reassigned to en...@google.com.*

the link only includes a bug report. please provide the sample source code so we can try to reproduce this.



**ky...@gmail.com** <ky...@gmail.com> [#10](#)

Nov 17, 2020 11:13AM

The 172946944\_BugReport.zip file in Google Drive contains the test app's project.



**en...@google.com** <en...@google.com> [#11](#)

Nov 17, 2020 11:51AM ⋮

Nov 20, 2020 11:09AM ⋮

Nov 20, 2020 05:46PM ⋮

Is there any way to improve performance in R?