Privacy Browser Android - Bug #605

The app doesn't initialize correctly when the theme is forced to be the opposite of the OS theme.

08/24/2020 02:33 PM - Soren Stoutner

Status:	Closed		**Start date:**	08/24/2020
Priority:	Next Release		**Due date:**	
Assignee:	Soren Stoutner		**% Done:**	0%
Category:			**Estimated time:**	0.00 hour
Target version:			**Spent time:**	0.00 hour

Description

The symptom is that the current page reloads instead of the bookmark.

History

#1 - 08/24/2020 02:35 PM - Soren Stoutner

- Tracker changed from Feature to Bug

I haven't yet been able to replicate this bug on any of my devices, but I have received a smattering of reports from various users across several Android releases. It might have something do to with Domain Settings enabling JavaScript on the current page not switching correctly to JavaScript being disabled on the new page. If anyone would like to help troubleshoot the problem, please reply below.

#2 - 08/24/2020 11:41 PM - Soren Stoutner

The two devices that I know experience these problem are a Moto E (4) Plus and a Moto G (5). Perhaps it relates to some customization that Motorola has done to their devices.

#3 - 08/25/2020 04:45 PM - Soren Stoutner

This also affects a Moto G (6). It is discussed at https://redmine.stoutner.com/boards/1/topics/37.

#4 - 08/26/2020 07:28 AM - Soren Stoutner

According to https://redmine.stoutner.com/issues/606 this also affects LineageOS 16.0.

#5 - 08/26/2020 10:40 AM - Soren Stoutner

Those experiencing this problem who would like to help test a possible fix can download a debug build of Privacy Browser Free from the following URL (will expire in a few days):

https://owncloud.stoutner.com/index.php/s/KQrSrpSoMsI3I9M

This can be installed alongside your current Privacy Browser app without causing problems. This debug build changes the order that things are loaded during app initialization to make it more similar to the 3.4.1 release.

#6 - 08/26/2020 01:43 PM - Leonard Schmidt

It did not fix it for me.

For what it's worth, I noticed that when using the system's light theme, I first have to open a new tab to be able to open a URL or bookmark (both tabs will then work). On the other hand, switching to using the system's dark theme doesn't have this issue, it behaves like the previous versions w/o the theme support.

Further, when starting PrivacyBrowser with the light theme, then going to "Settings" and switching to "Dark", it restarts and now has three empty tabs open. Going from dark to light doesn't, it still has only one tab open after restarting.

#7 - 08/26/2020 01:54 PM - Soren Stoutner

Correct. What is happening is that the app isn't initializing correctly, causing the tabs and the WebView displayed to not be the ones that the system things they are. So, when it tries to load a bookmark or perform some other function, it doesn't work correctly (it is updating a WebView that either doesn't exist or isn't displayed on the screen).

Switching tabs resets the current WebView, which can fix some of the problems depending on exactly what is wrong. Similarly, changing the theme restarts the activity which also resets a large number of items, and sometimes they come back in the right order. If not, you can end up with things like three empty tabs.

For some people it works better if they are using the light theme. For some people it works better if they are using the dark theme. This is because, with the new Day/Night theme, when the app starts, if it is running a different theme than the OS (prior to Android 9, the OS is always running the light

theme unless battery saver is enabled, in which case it is always running the dark theme), the app stops and restarts into the new theme during initialization. Depending on what is going on, this double initialization either helps or hurts.

But none of this gets to the core of the problem. I still have no idea why three Motorola phones and one LineageOS device have problems when it works perfectly well for everyone else. And unless we can get to the root of what is causing the problem, it is very difficult to resolve it. Short of getting ahold of a Motorola phone for testing, I'm not sure where to proceed from here.

#8 - 08/26/2020 01:55 PM - Soren Stoutner

- Subject changed from Bookmarks won't load in certain circumstances to The app doesn't initialize correctly with the Day/Night theme on some devices.

#9 - 08/26/2020 03:55 PM - Soren Stoutner

I borrowed a Motorola XT1585 (Droid Turbo 2) and was able to replicate the problem. The root cause is that the Populate Bookmarks AsyncTask would start but not finish before the app was restarted. This caused two tasks to run simultaneously, which would populate 2 initial tabs (only 1 visible), making the loading of bookmarks unhappy.

I have created another debug build of Privacy Browser Free that cancels the AsyncTask if the instance state is saved.

https://owncloud.stoutner.com/index.php/s/4bg6TUyYqqSJwaO

This does cause a problem if someone navigates away from Privacy Browser while the blocklists are loading (they end up stuck on the loading screen). But that is an uncommon enough scenario that I don't think many people will run into it. The permanent solution is to switch the Blocklists to a ViewModel (https://redmine.stoutner.com/issues/597), but that is a complex enough tasks that I would prefer to push it off.

Can someone who has this problem test the above debug build? If it works for you, I will release 3.5.1.

#10 - 08/26/2020 04:04 PM - Soren Stoutner

Now that I know the root cause of the problem, I have been able to recreate symptoms on non-Motorola devices, like a Pixel 2 XL and a Pixel 4 depending on the theme settings used.

#11 - 08/26/2020 10:52 PM - Leonard Schmidt

Thank you, Mr. Stoutner, for your detailed explanation of the problem at hand.

All I can say is that yes, I am able to open bookmarks/URLs right away using the light theme with your new build. However, it gets stuck on the blocklist load screen when switching from dark to light and vice versa. I then have to forcibly close and re-open it.

I also noticed that the WebView theme doesn't always get honored. I have set the UI to "dark" and WebView to "light", though sometimes WebView's dark theme gets applied instead. This affects 3.5 and the debug build.

#12 - 08/27/2020 12:06 AM - Soren Stoutner

- Status changed from New to In Progress

Thanks for the further information. I have created another debug build that I think should address the the problems you describe. Regarding the incorrect WebView theme, it was not being applied correctly for domains with domain settings:

https://owncloud.stoutner.com/index.php/s/gv5wytWhwXRNpPU

#13 - 08/27/2020 12:27 AM - Leonard Schmidt

Thank you, Mr. Stoutner, the issues I described above seem to have been resolved with the newest build. It no longer gets stuck loading blocklists either when switching themes.

#14 - 08/27/2020 03:08 AM - Richard Lucassen

Downloaded latest free version and this one works well as far as I can see.

Richard

#15 - 08/27/2020 04:44 AM - Richard Lucassen

Oh, BTW, LineageOS-16

#16 - 08/27/2020 08:10 AM - Soren Stoutner

- Subject changed from The app doesn't initialize correctly with the Day/Night theme on some devices. to The app doesn't initialize correctly when the theme is forced to be the opposite of the OS theme.

#17 - 08/27/2020 08:19 AM - Soren Stoutner

- Status changed from In Progress to Closed

Fixed in commit https://git.stoutner.com/?p=PrivacyBrowser.git;a=commitdiff;h=a4ec41c79f5050006fd4c8dd6454f3ec8a7f99ab.