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Executive Summary

The Avast Android App Performance & Trend Report Q1 2017 reveals the top performance-draining apps for Android devices, based on battery, storage and data use, and the key recent trends in Android app use.

Methodology



The app data included in this report covers the time period of January through to March 2017.

3,000,000
ANDROID USERS

The Avast Android App Performance & Trend Report was gathered from a sample of aggregated and anonymized data from more than three million Android users around the globe for performance data (battery life, storage and traffic) and more than 50 million users for general app statistics.



This report only includes Google Play applications where Avast observed a minimum sample size of 50,000 usage incidences.





A Insights and AnalysisNew Resource Drainers in 2017





Talkback is a newcomer in the list of most performance-draining applications. The accessibility app helps blind or vision-impaired users

by offering them text-to-speed options, vibration feedback and more. Unfortunately, the app seems to drain power even if it isn't actively being used.

There are some 3^{rd} party apps toggle Talkback on, so that it launches automatically once you reboot your smartphone — and it stays on.



To fix this, go to your **Settings**, find **Accessibility** and **Talkback.** Flip the switch to **Off** or if it's already off, flip it **On** and **Off** again.



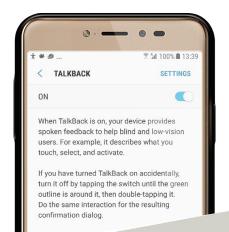


The built-in Google Play Music app seems to rapidly drain battery and is in the 7th spot of our top 10 most resource-draining apps. It seems that

ad blockers are a common cause for battery drain with the music app.



Add Google Play Music to the whitelist of your ad blocker. This can sometimes help eliminate the issue.





SHAREit Sharing is Draining with this Smartphone Killer

This free app by Lenovo allows you to share files over Wi-Fi from one device to another and works with PCs (Windows), Android and iOS devices. It's a high-ranking app loved by its users, but given its Wi-Fi usage, it appears at the No 4 spot on our most performance-intense apps list.



A Insights and Analysis

New Resource Drainers in 2017



Google Doc

Text Editor Causes Writer's Block



This straightforward text editor is now the second most draining app on our list. Our testers found that the app impacted the battery more when you're

accessing Google Drive regularly.



Uninstalling and reinstalling Google Drive and Google Docs can help with this issue.



Samsung Media Hub

The Ghost of Smartphones Past



This app was actually discontinued in 2014 yet is showing up as a resource drainer 3 years later. This may be caused by older Galaxy

phones from 2013 and 2014 still running it actively. If it's on your device but you're not using it, you can remove it and use other current media stores and players instead.



Piano Tiles 2

Musical Mischief Maker



The rhythm and timing based game Piano Tiles 2 is one of the top resource draining apps in the games category. In our own tests using a Galaxy S6,

it drained the battery in less than 3 ½ hours of consistent usage.





A Insights and Analysis

Top 50 Most Installed Android Apps



Google Instant Apps: Storming the charts



Not a lot has changed in the list of most installed apps on Android since the last report, except for **Google Instant Apps**, which is installed on 3 million of the 50 million devices surveyed. It's Google's technology to help test drive apps without actually installing them, as only a portion

of the app is being downloaded and not permanently stored.

AliExpress is the other newbie on our list – the app allows you to shop across multiple online stores worldwide and has entered the list of most installed applications in Q1 2017. Both **Microsoft Word** and **Microsoft Outlook** made it into the list of top 50 apps worldwide, too, and are now the most used text editing and email apps aside from Google's own pre-installed apps (which we don't count here).



A Insights and Analysis Most Popular Devices: Q1 2017

Most popular devices in Q1 2017:
Samsung S6 and S7 are gaining marketshare

The once popular Samsung Galaxy S3 noticeably lost market share in Q1 - only about 750,000 active devices among our total user base remain, in comparison to nearly 2 million a year ago.

The new star in the Samsung line-up is the S7, which started showing up on our Top 10 in Q4 2016 and is now the fifth most popular smartphone in the Android world.

Among our user base, Sony lost approximately 30% market share between Q1 2016 and Q1 2017.

- 1 Samsung Galaxy S5 Duos 4G LTE-A Google Android 4.4.4
- 2 Sony Xperia Z2 LTE Google Android 4.4.2
- 3 Samsung Galaxy S6 LTE-A Google Android 5.0.2
- 4 Samsung Galaxy S3 Neo Specs Google Android 4.3
- Samsung S7 Edge XLTE Google Android 6.0.1



6 Samsung S7 Duos TD-LTE Google Android 6.0.1 (Chinese)



7 Sony Xperia
Z3 Compact LTE
Google Android 4.4.4



8 Sony Xperia Z3 LTE-A Specs Google Android 4.4.4



Sony Xperia M4
Aqua Dual LTE
Google Android 5.0



Samsung Galaxy S4
Black Edition 32GB
Google Android 4.2.2

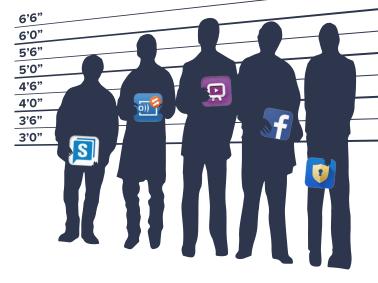




A Insights and Analysis

The Usual Suspects: Facebook, AllShare Cast & more

Since we first produced this report, a number of resource-eating apps have consistently appeared on our lists with the following seven being the most common:



1

AllShare Cast Dongle Software Update



This is a service responsible for updating the AllShare Cast Dongle software which allows users to stream content from their

phones, such as videos or songs, to a compatible smart TV. A few years ago, it came as a pre-install on some smartphones, such as the Samsung Galaxy S4. However, even when not in use, the app continues to drain resources, so if you want to stop it, check your list of most draining apps (see AVG Cleaner for Android) or find the AllShare Cast app on your phone and turn off quick sharing.

2 Samsung WatchOn



WatchOn, Samsung's pre-installed remote app (also called 'Peel' on newer devices) can switch channels on your smart TV or help

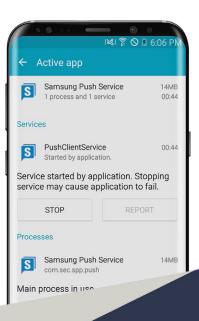
you find a program. It drains battery so if you are low on power, it's helpful to turn it off.

3 Samsung Push Service



Also a pre-installed service, this allows Samsung-only apps like ChatON, AllShare or Samsung Wallet to display

notifications. It's helpful to know that this app also drains phone battery.



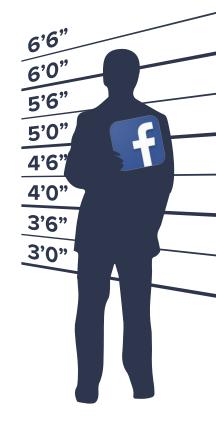




No surprises here, both Facebook and its messenger app always rank among the top drainers on Android phones. Accessing Facebook through your browser will eliminate the constant background drain of the app, although you'll be missing out on notifications and the comfort of the app.



This app has been discontinued and replaced by the Samsung Knox Message BETA, except in the US. Again, it is a heavy resource drainer so if you are not using it, you should remove it from your device.





A security system running on a wide variety of Android smartphones. It was introduced a few years ago and helps provide a secure environment for enterprise applications on phones, allowing "BYOD" (Bring Your Own Device). It's designed to prevent malicious apps from impacting your company's apps. The update app, however, draws more battery life than it really should.



The Beep'nGo app allows you to scan and store all your plastic cards that have a barcode, eliminating the need to carry your plastic cards with you. This top battery draining app was discontinued in 2017.







World's Greediest Mobile Apps

In this section, we reveal which apps had the most overall impact on mobile devices, draining battery life, storage and data plan.

TOP 10 PERFORMANCE-DRAINING APPS THAT RUN AT START-UP





Apps that run automatically in the background

In this quarter, the list of the most resource-heavy apps that run in the background is dominated by built-in or pre-installed apps. Notably, these include Samsung's **AllShare, ChatON** or **Push Services** apps alongside Google's **Plus, Hangout** and **Maps** apps. Separately, ChatON even showed up twice on our list: the earlier version which came pre-installed on some older Galaxy phones and its successor ChatON Voice & Videochat.



Stop, sleep or uninstall apps that you don't need. Find alternatives to the ones mentioned above if they show up on your lists of most draining apps.



World's Greediest Mobile Apps

TOP 10 PERFORMANCE-DRAINING APPS RUN BY USERS



Apps activated by the user that run in the foreground:

For the first time in months, two previous drainers **Spotify** and **Snapchat**, have dropped out of their top 10 positions on the most performance draining apps list. As we've mentioned above, **Google Docs**, an app that's as simple as editing text is now the number two drainer on your phone, so using a different editor tool, such as **Microsoft Word**, could be an alternative.





Top Ten Battery Draining Apps

TOP 10 BATTERY DRAINERS THAT RUN AT START-UP



Aside from the pre-installed apps we've already covered, Facebook, WhatsApp and WeChat are also the top drainers in that category. In the case of Facebook and its messaging app, you can still uninstall and use the web-only version to help save resources.





Top Ten Battery Draining Apps

TOP 10 BATTERY-DRAINERS RUN BY USERS



Samsung's built-in video editor has now become the second most battery draining app. It requires intense processing (CPU) and graphical (GPU) resources from your phone for editing and adding effects to your videos.

No surprise here: **Spotify, Netflix** and **Snapchat** continue to be heavy drainers, as they're using more resources than your browser or mail app.





Top Ten Storage Hogging Apps

TOP 10 STORAGE-EATERS THAT RUN AT START UP





Once at the top of the list of most resource draining and (particularly) storage eating apps, as outlined in our last App Report, **musical.ly** is no longer on this list. Instead, we are seeing a return of classic apps that use up your phone's internal memory, such as **Facebook, Instagram, and Kindle**, all of which store local cache files, photos or books. Note that these apps run automatically at startup, so you might not even be aware of their excessive usage.

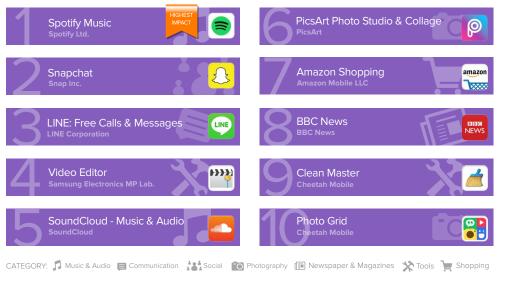
Google's Quick Search Box appears to keep larger caches than Maps or Chrome and our testing indicated that offline searches and the cache used by Google's Quick Search box tends to grow excessively. Only uninstalling it or using a cache cleaner (such as AVG Cleaner for Android) helps keep usage down.





Top Ten Storage Hogging Apps

TOP 10 STORAGE-EATERS RUN BY USERS



Spotify is back on the list of top storage eaters that are being actively run by users. You could clean down the music or playlists you aren't listening to any more to help manage this. Apps we saw in our previous report, such as the **Jehovah's Witnesses JW Library** App and comic-book reader **Comico**, are no longer on the list.

New on the list is **Photo Grid**, an fun effect-driven picture editor that you can use to add effects to your selfies or photos to absurd limits. Remember to clean up photos if you don't need them anymore.





Top Data Traffic Hogging Apps

TOP DATA TRAFFIC HOGS THAT RUN AT START-UP



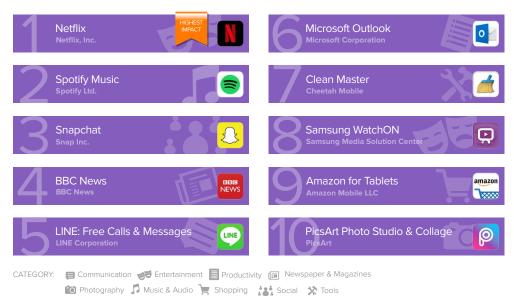
Some apps consume your mobile data volume even if you're not actively using them. The latest top 10 list shows **Facebook** and **Instagram**, followed by **Yahoo! JAPAN** are the three biggest users of data; the **Weather Channel** also appears once again. Consider turning off these apps or removing their background activity to help manage the use of your data plan when you are not connected to Wi-Fi.

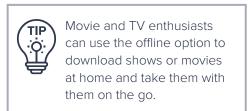




Top Data Traffic Hogging Apps

TOP 10 DATA TRAFFIC HOGS RUN BY USERS





Netflix is still at the top of the list of apps our users actively ran this quarter, followed by **Spotify** and **Snapchat. Amazon App for Android tablets** is also heavy on traffic so using Wi-Fi rather than your data plan is advised.

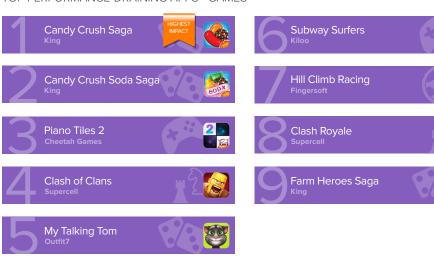




Mobile Gaming - What Gamers Should Know

TOP PERFORMANCE-DRAINING APPS - GAMES

CATEGORY: 12 Strategy Casual Arcade Simulation



Simple 2D games like **Candy Crush Saga** or **Soda Saga** continue to rank as highly on this list as most resource-eating games on Android. This list has barely changed since we first launched our App Report series almost 3 years ago. Two notable exceptions are **Piano Tiles 2** and **Hill Climb Racing**, which drained the battery of our test device, a Samsung Galaxy, in less than 3 ½ hours, despite the fact that the graphics are quite simple.





C Addressing the Issues

7 Ways to Boost Battery Life, Free Up Storage and Reduce Mobile Data Traffic

Here are 7 easy steps to help you boost battery life, stop storage eaters and save mobile traffic.

We've put together a comprehensive guide for all consumers and businesses looking to address the issues outlined in this report.

Click <u>here</u> to download the full PDF guide.



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Limit notifications to save battery life, performance and mobile data

Phone notifications are one of the most useful mobile inventions, giving you information you need to know about new appointments or messages at a glance. But not all of them are useful, and they can consume resources.



Limit apps battery and performance drain

Reduce background features, refresh intervals, location usage or in-app notifications.



Free up space

Apps collect clutter over time. Use AVG Cleaner for Android, an Avast product, to get rid of temporary files.



Reduce data traffic

Turn off background data transfers or any offline reading features within your app if you don't want it to consume mobile traffic.



Turn off Wi-Fi, Bluetooth and GPS

To save more battery life, turn off all the hardware features you don't need at any given moment.



Turn down brightness

If you're not in bright sunlight, we recommend turning down the brightness level of your phone's display. Why? On many of today's big phones and tablets, the display is responsible for up to 80% of the entire power consumption.



Get rid of performance-sapping apps

Our <u>AVG Cleaner for Android</u> app analyzes the top battery, storage, and traffic-hogging apps on your device. If you don't need one of these apps, you can easily uninstall it and look for more resource-friendly alternatives.



♠ Connect charger

The battery is getting low.
1% remaining

More information and resources on how to get the most out of your connected devices at: <u>blog.avast.com</u>. Or visit our websites for more details about our performance products: <u>avast.com/battery-saver</u> and <u>avg.com/performance</u>

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D Appendix

USA

TOP PERFORMANCE DRAINING APPS - EXCLUDING GAMES



TOP BATTERY DRAINERS THAT RUN AT START UP



Appendix

USA

TOP BATTERY DRAINERS RUN BY USERS



TOP 10 STORAGE EATERS - EXCLUDING GAMES



D Appendix

USA

TOP 10 DATA TRAFFIC HOGS - EXCLUDING GAMES





Appendix

UNITED KINGDOM

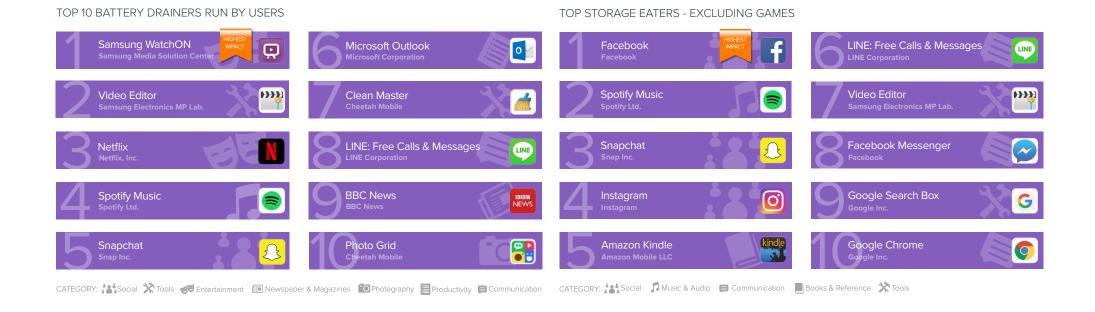
TOP PERFORMANCE DRAINING APPS - EXCLUDING GAMES





D Appendix

UNITED KINGDOM





D Appendix

UNITED KINGDOM

TOP DATA TRAFFIC HOGS - EXCLUDING GAMES



