



Avast® Android™ App Performance & Trend Report

Q3 2017 | by Avast®



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Introduction

Top Draining Apps & Smartphone Trends

Apps can make a phone or break it. The Avast Q3 Android App Performance & Trend Report reveals the most resource-hungry Android apps, as well as the latest trends in the mobile ecosystem.

Apps consume battery, data, and storage. Some apps drain battery in a few hours, others monopolize mobile data, and certain ones use up a device's storage. The worst offenders do all three at the same time.

Avast, the global leader in digital security products, regularly releases the Avast Android App Performance & Trend Report to help users navigate the digital sea of apps and find out which ones are the worst offenders.

Methodology

COVERING
Q3

The data included in this report was collected between July to September 2017.

DATA FROM MORE THAN
3,000,000
ANDROID USERS

All the data analyzed for this report was gathered from an aggregated and anonymous sample of Avast Android mobile app users. The performance data (battery life, storage, and traffic) in this report was pulled from three million Android users around the world, whereas the general app statistics were collected from more than 50 million users.

APPS WITH
50K+
USAGE INCIDENCES

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



 **Connect charger**
The battery is getting low.
1% remaining



A Insights and Analysis

New Resource Drainers in 2017

Late 2017, Avast identified the latest draining apps, highlights and smartphone trends.


1 Samsung Push Services Push it out the door




One of the top three hidden resource drainers on Samsung phones is a little known app called “Samsung Push Services”. To the average user, it might sound like an important service, and looking at its official Play Store page, Samsung

Push Services (SPS) has one billion downloads with more than 600,000 ratings at 4.1 stars. Looking closer, most of the comments range from bad to ironic.


Unfortunately, the app doesn’t add much value for the level of battery it uses. Its sole purpose is to provide notifications for a few built-in Samsung apps like Samsung Link, Wallet or Pay, but even without SPS, these apps continue to work well.




Lyle Smith 25 August 2017
★★★★★
Not deleting just cause of the hilarious reviews! Good job Samsung n its reviewers! Imfao....oh wait right i can't delet it!



Thomas Smith 16 June 2017
★★★★★
In my best joker voice..."Why so pushy, Samsung?" Luckily, the Google play refund policy allowed me to uninstall and get my money back on this app.

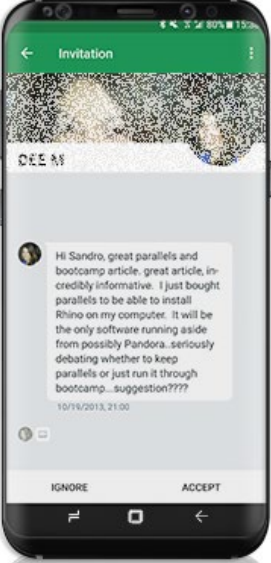


Nancy Shewey 18 May 2017
★★★★★
Last Night...A samsung saved my life. Last Night a samsung push save my life with a song. I was sitting there board to death and then in one breath... it said you got to get up to get down!



Randy Ewert 24 February 2017
★★★★★
I was walking down a sketchy area last night and got jumped by a gang of pullers. The app automatically activated and PUSHED the bad guys away giving me a chance to defend myself. Very useful app in situations you never expected. Keep updated!!!

TIP Uninstalling SPS will only uninstall the latest updates, not turn off the SPS itself. To disable SPS, simply switch off its notifications.



A Insights and Analysis

New Resource Drainers in 2017

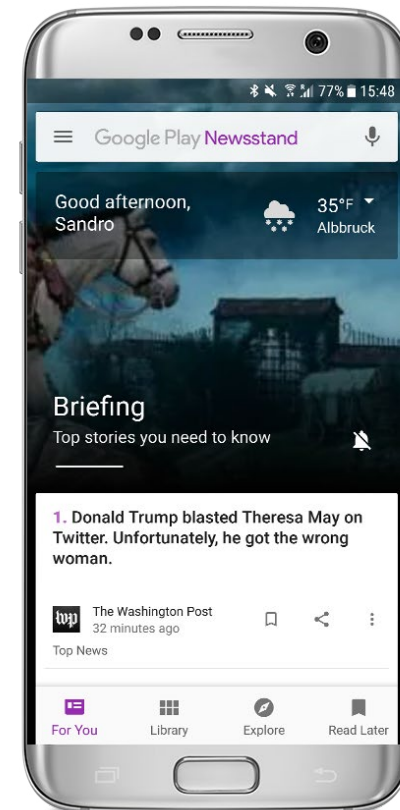
- 2 Google Play Music, Newsstand, Talkback & more**
The performance threats from within: preinstalled apps!



It's not always the heavyweights like **Netflix** or **Facebook** that devour phone resources: In 2017, Google's (and Samsung's) built-in services significantly slowed down performance by running continuously in the background. Topping the list are apps like **Google Play Music, Newsstand, Talkback, Hangouts** and more. Several of these apps are preinstalled on Samsung smartphones or included in the Android OS itself. **ChatON** even pops up twice in our top 10: Samsung's built-in version and the newer standalone release, which were both included in the 2017 Q1 report.



If an app isn't needed, users should disable it or uninstall it completely. If it's needed, users can control its usage and notification settings: In the example of **Newsstand**, a well-rated news reader, users can go to the apps setting (see below) to enable the Data Saver Mode. In addition, turning off notifications for **Top stories and topics** or **New magazine issues** will help as well as disabling the auto-playback of videos. Last, but not least, clearing all downloads (see last entry in the list) will remove all stories stored locally.



A Insights and Analysis

New Resource Drainers in 2017

3 Superbright LED Flashlight Empty in a flash



At half a billion downloads, Superbright LED Flashlight is one of the most popular apps that turns phones into a flashlight. It's quite easy to use, but also made its way into our top 10 most resource-demanding apps.



To prevent an Android phone's battery from draining, users should check if their phone supports a flashlight feature natively through the notification center.

4 Google Talkback Talk is Cheap (or is it?)



One of the big surprises in this quarter's app report is the sudden spike in data usage coming from Android's own 'read aloud' feature, also called Google Talkback ([see more on page 19](#)). Apps can access Talkback to offer text-to-speech, which can cause quite a drain on resources.



Avast Cleanup for Android gets rid of leftover cache files and deletes downloaded videos already watched.

5 Amazon Prime Video When prime time ruins phone time














Amazon Prime's user base is not only growing, but the amount of resources the video streaming app drains is also growing. It came in as one of the top storage consumers, caused by both its ability to store videos for offline viewing and temporary caching.



A Insights and Analysis

Top 50 Most Used Android Apps

1 Facebook		11 Snapchat		21 imo free video calls and chat		31 AliExpress Shopping App		41 VK	
2 WhatsApp Messenger		12 Twitter		22 Shazam		32 Clash of Clans		42 Pokémon GO	
3 Chrome Browser (Google)		13 Pinterest		23 Waze - GPS, Maps & Traffic		33 Telegram		43 VidMate	
4 Messenger		14 Uber		24 ZEDGE™		34 ES File Explorer File Manager		44 My Talking Tom	
5 Instagram		15 Netflix		25 Wish		35 Opera Mini Browser		45 Snaptube	
6 Skype		16 Viber Messenger		26 MX Player		36 Xender		46 HDStar Tv	
7 Spotify		17 Adobe Acrobat Reader		27 Firefox		37 UC Browser		47 Piano Tiles 2™	
8 Google Translate		18 SHAREit		28 Subway Surfers		38 PicsArt Studio		48 Tinder	
9 Microsoft Word		19 Candy Crush Saga		29 Clash Royale		39 Bitmoji		49 My Talking Angela	
10 Facebook Lite		20 Microsoft Outlook		30 Truecaller		40 Device Id Manager		50 8 Ball Pool	

6 WhatsApp & Facebook: dominate the Android world



Facebook and WhatsApp are the most installed third-party applications on millions of Android phones, closely followed by Chrome and Messenger. When looking at apps that come preinstalled on Android devices, the

top four are the Google Play Store (which is constantly being accessed), YouTube, Maps, and the Google QuickSearchBox. Surprisingly, Microsoft is slowly but steadily conquering the world of Android as well: both Word and Skype climbed the charts of most installed Android applications.

A Insights and Analysis

Most Popular Devices: Q3 2017

7 Most popular devices in Q3 2017: It's a Samsung's World (almost!)

The aging Samsung Galaxy S5 is the king of the hill as it's the most used Android phone out there. A situation that won't last long as it's looking at a market share loss of about 5% compared to Q1 2017. Hot on its heels: The 2016 flagship Galaxy S7, which has gained market share and is likely to be the most used Android handset by early 2018.

The only non-Samsung handset on the list is the Huawei P8 Lite, which was released early 2017. Since the release, it's become the fifth most popular phone on the list, likely caused by its price performance ratio.

When reviewing the phones overall, half are more than two years old, with some going back to the S3 from 2012. Basically, many users aren't willing or able to replace their phone if it's less than two year's old. Users should be aware that Samsung does not regularly provide security updates for older models, as detailed in its quarterly list of updates. Eventually, these devices will become security risks to their users.

1 Samsung Galaxy S5



2 Samsung Galaxy S7



3 Samsung Galaxy S6



4 Samsung Galaxy S7 Edge



5 Huawei P8 Lite



6 Samsung Galaxy J7



7 Samsung Galaxy S4



8 Samsung Galaxy J5



9 Samsung Galaxy S6 Edge



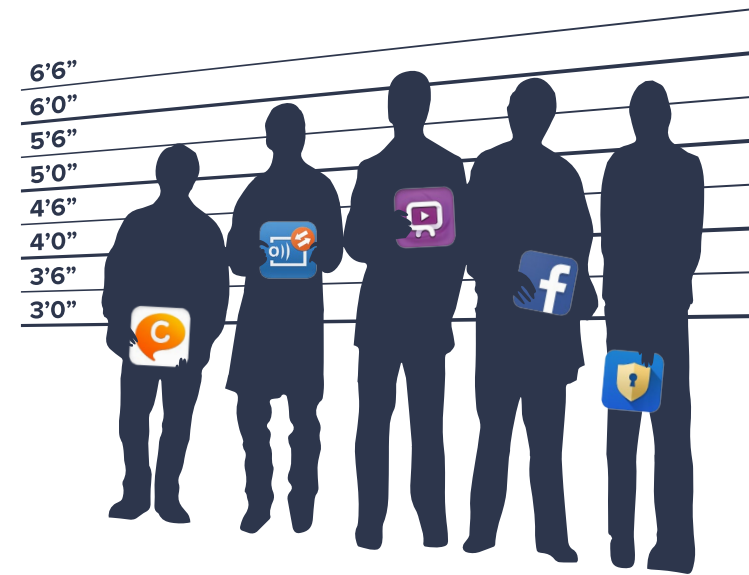
10 Samsung Galaxy S3



A Insights and Analysis

The Usual Suspects: Facebook, AllShare Cast & more

Since producing this report, a number of resource-eating apps have consistently appeared on the list, with the following seven being the most common:



1 AllShare Cast Dongle Software Update



The AllShare Cast Dongle software allows users to stream content from their phones, such as videos or songs, to a compatible smart TV. A few years ago, it was pre-installed on some smartphones, such as the Samsung Galaxy S4. However, even when not in use, the app continues to drain resources. In order to stop it, check the list of most draining apps, [use Avast Cleanup for Android](#), or turn off quick sharing in the app.

2 Samsung WatchON



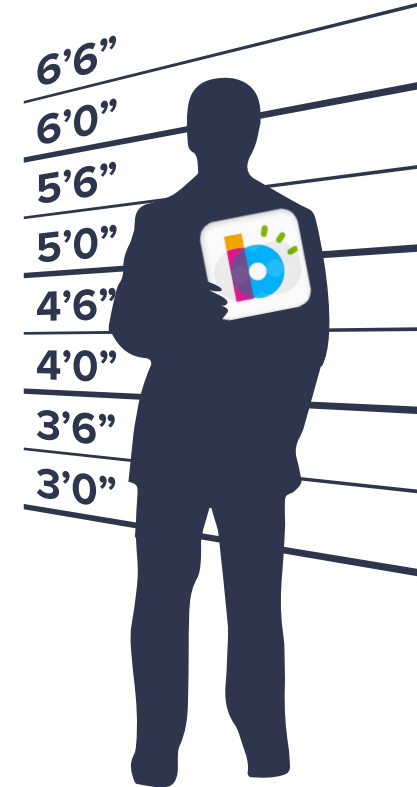
WatchON, Samsung's pre-installed remote app (also called 'Peel' on newer devices) can switch channels on smart TVs or help find a program. It drains battery life, so if a device has low power, it's helpful to turn it off.

3 Facebook & Facebook Messenger



No surprises here, both Facebook and its Messenger app always rank among the top drainers on Android phones. Accessing Facebook through a browser will help eliminate the constant background drain of the app, although this means missing out on app notifications.





4 Samsung ChatOn



This app has been discontinued and replaced by the Samsung Knox Message BETA, except in the US. It is a heavy resource drainer so if it's not being used, it should be removed.

5 Samsung Knox / Security Policy Update



The Samsung Knox Security Policy Update is 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 a company's network. The update app, however, draws more battery life than it really should. As a security feature, it should not be disabled. If users experience performance issues, they should report these to Samsung.

6 Mobeam Beep'nGo



The Beep'nGo app allows users to scan and store all their rewards cards that have a barcode, eliminating the need to these cards. This top battery draining app was discontinued in 2017 and should be removed if it's draining the battery.



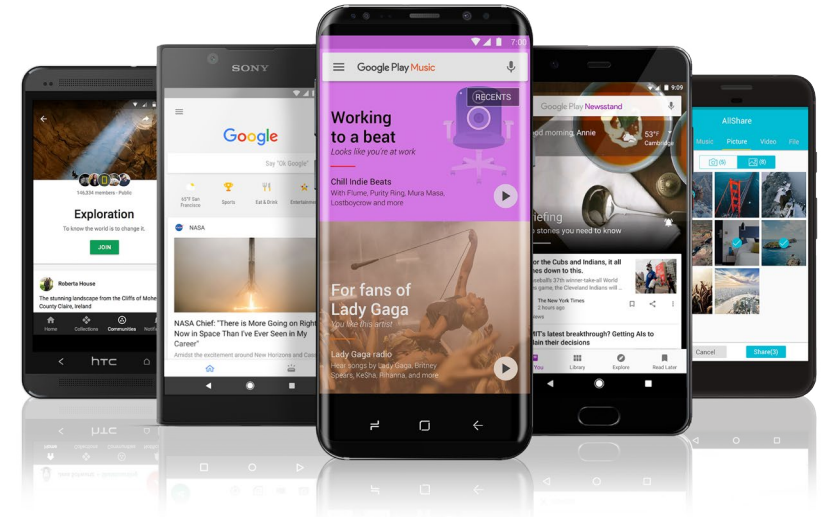


Key Findings **B**
World's Greediest Mobile Apps

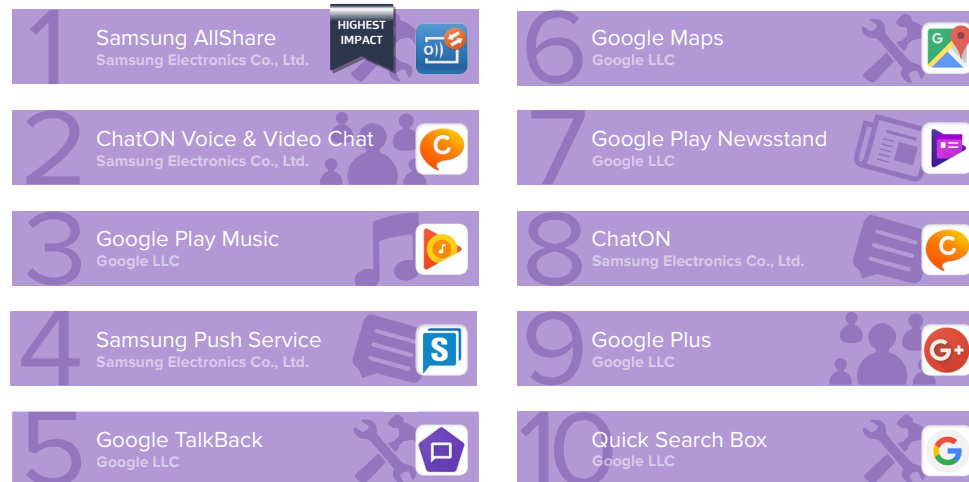
B Key Findings

World's Greediest Mobile Apps

In this section, the apps that most impact battery life, storage, and data plans are revealed.



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



CATEGORY: Social Communication Tools Newspaper & Magazines Music & Audio

Apps that run automatically in the background

Background apps: the silent resource killers, the ninjas on many smartphones. Unfortunately, these apps run automatically in the background and launch when the phone is turned on, whether wanted or not.

In this list, Samsung and Google dominate the top 10 apps that drain phones the most in all three categories (battery life, mobile data, and storage combined). None of the third party apps analyzed had that much of an impact. High on the list are services that might not be needed and should be disabled, such as **ChatON**, **Talkback** or the built-in **Music** app.

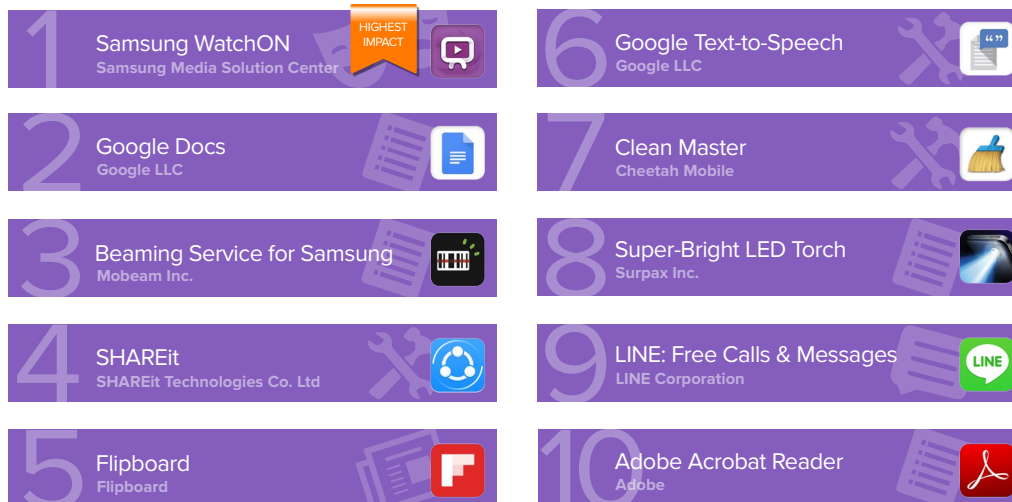


TIP Users should stop, sleep, or uninstall apps that they don't need. Find alternatives to the ones mentioned above if featured on the lists of most draining apps.

B Key Findings

World's Greediest Mobile Apps

TOP 10 PERFORMANCE-DRAINING APPS RUN BY USERS



CATEGORY: Entertainment Communication Productivity Newspaper & Magazines Tools

Apps activated by the user that run in the foreground:

It should be simple and straightforward: Running a more resource heavy app like **Samsungs WatchON** (remote TV control and guide), **YouTube** or **Netflix** should drain users' phone resources quicker than a simpler app, right? Seems like things aren't that black and white this quarter. While **Google Doc**, a simple text app, ranked second for almost a year now, an **LED Flashlight** app mentioned in the summary above is new to the list. Another surprise is **Adobe Reader**, which shouldn't drain more resources than some of the more media-heavy applications on this list, such as **Video Editor**.

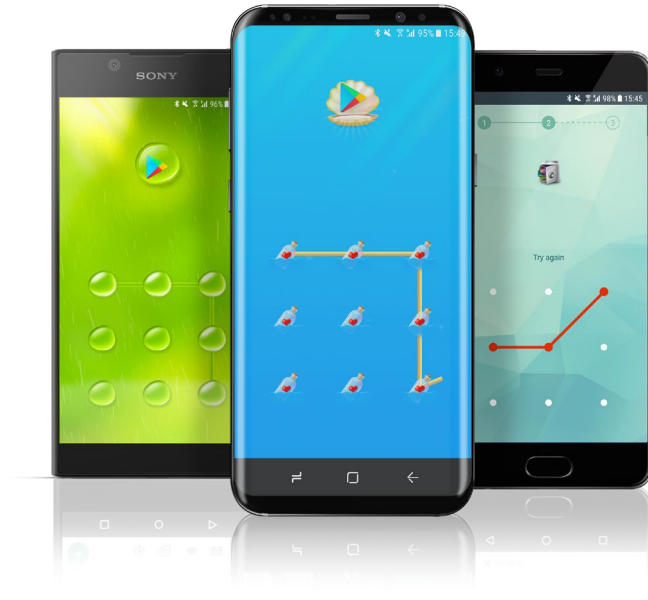


B Key Findings

Top Ten Battery Draining Apps

Chatterbugs beware: **ChatON**, **WhatsApp**, and **WeChat** are all high on the list of battery drainers that keep on sucking electricity even when not actively being used. Users of **AppLock** should fire up the apps very own battery saving


functionality and refrain from using any of the animated themes when locking apps or part of their Android OS, as the app remains in the top 10 of top battery drainers.



TOP 10 BATTERY DRAINERS THAT RUN AT START-UP

1	Samsung AllShare Samsung Electronics Co., Ltd.	HIGHEST IMPACT	6	Facebook Facebook
2	Samsung Security Policy Updates Samsung OTA Software Update		7	AppLock DoMobile Lab
3	ChatON Voice & Video Chat Samsung Electronics Co., Ltd.		8	WeChat WeChat Tencent
4	Google Maps Google LLC		9	Microsoft Outlook Microsoft Corporation
5	WhatsApp Messenger WhatsApp Inc.		10	DU Battery Saver DU APPS STUDIO

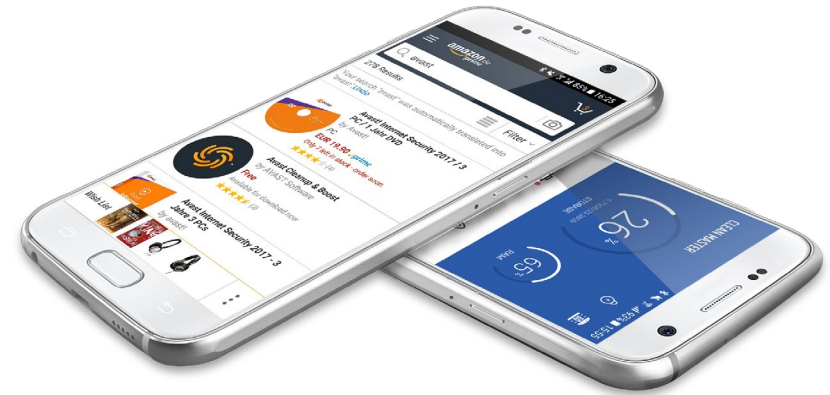
CATEGORY: Social Productivity Tools Communication



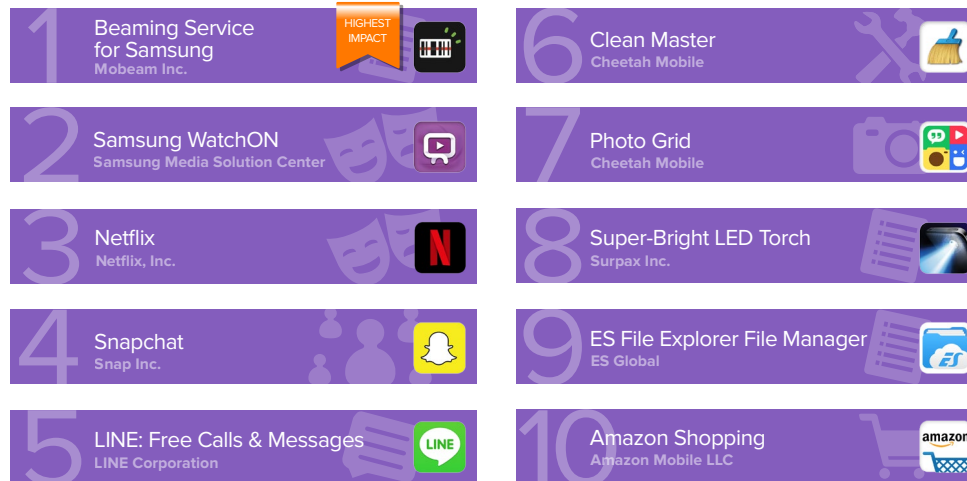
If battery life is an issue, turn off push notifications from messaging apps or cut down on sending, or watching multimedia files while on the go, as these activities can drain battery life.

B Key Findings

Top Ten Battery Draining Apps



TOP 10 BATTERY-DRAINERS RUN BY USERS



CATEGORY: Social Entertainment Productivity Tools Communication Photography Shopping

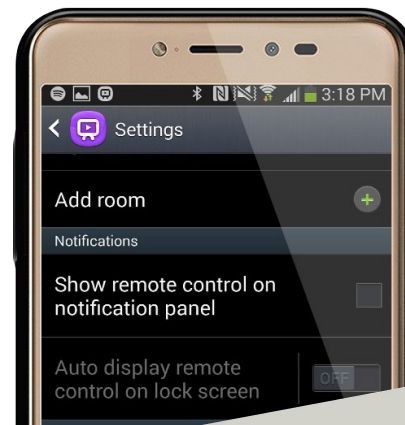
Samsung's WatchON remains a usual suspect on the list of top 10 battery drainers and should be disabled if not required.

When it comes to shopping apps, users who are concerned about their device's battery life should think twice before downloading the **Amazon Shopping** app. The app has crept its way onto the top 10 battery draining apps. To avoid low battery life, shoppers should consider using a PC or only browse when their device is connected to a charger.

Watch out: The **CleanMaster** app from Cheetah Mobile seems to drain a lot of battery life when used, which might be caused by its not so subtle animations (e.g. a whirlwind when cleaning notifications) and its low level access to phones resources.



TIP Users shouldn't start cleaning their phones if their battery is running low.



B Key Findings

Top Ten Storage Hogging Apps

TOP 10 STORAGE-EATERS THAT RUN AT START UP



CATEGORY: Social Communication Tools Books & Reference

This list includes apps that amass data and eat up smartphone storage in the background. The number one offender is still **Facebook**, which collects caches every time its running and forgets to delete them. Others on this list are browsers like **Chrome**, and **Firefox**.



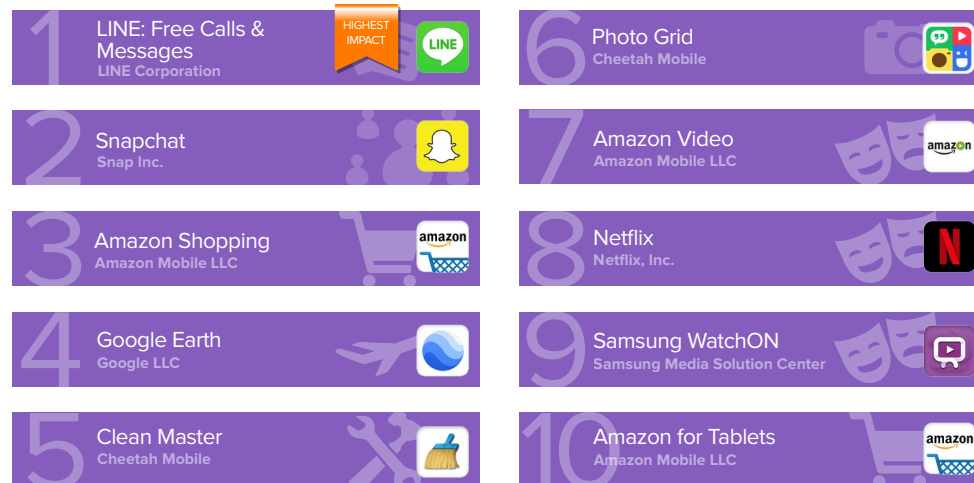
TIP Uninstalling these apps or using a cache cleaner, such as [Avast Cleanup for Android](#), helps limit storage usage for apps that don't have a cleaning button.



B Key Findings

Top Ten Storage Hogging Apps

TOP 10 STORAGE-EATERS RUN BY USERS



CATEGORY: 🎵 Music & Audio 📧 Communication 👥 Social 📷 Photography 📰 Newspaper & Magazines 🛠️ Tools 🛒 Shopping

Korean app, **LINE**, rose to the top of the top 10 storage hogging apps list. LINE made it big in Japan during the earthquake in 2011 and was distributed online as a way to quickly get in touch with peoples loved ones. It has since garnered more than 400 million users worldwide. One explanation as to why LINE made it so far up the list, could be its users sharing a lot data (photos, videos, or other files) and keeping them on their device. LINE is the number one storage consumer on Android that is actively run by the user. The same goes for **Snapchat** at number two. **Netflix** and **Amazon Prime** users should delete shows or movies they've already seen, as both apps rank quite high and that's likely caused by their offline feature.



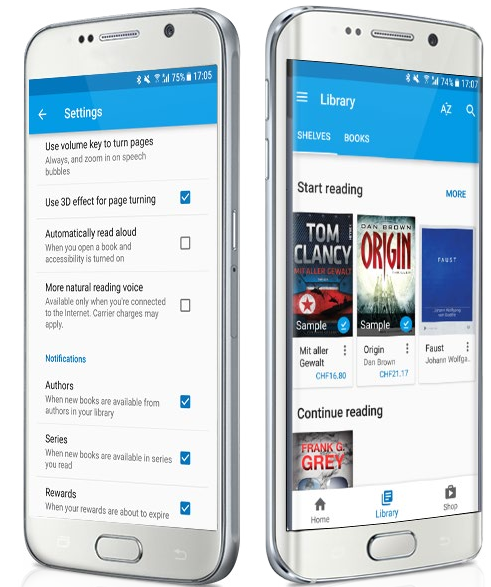
B Key Findings

Top Data Traffic Hogging Apps

TOP DATA TRAFFIC HOGS THAT RUN AT START-UP



CATEGORY: Social Tools Communication Newspaper & Magazines Weather Music & Audio



The following list reveals the top 10 apps that consume mobile data. Users who often wonder why their mobile data runs out before the end of their billing cycle, should check which apps they have installed.

One of the top drainers this quarter is Android's accessibility functionality, **Talkback**, which offers text-to-speech for onscreen content. **Books** uses mobile connections to download the book and the voice that's reading it. The other apps on this list aren't a real surprise as they're known data vampires: **Facebook**, **Spotify**, and **Instagram**.

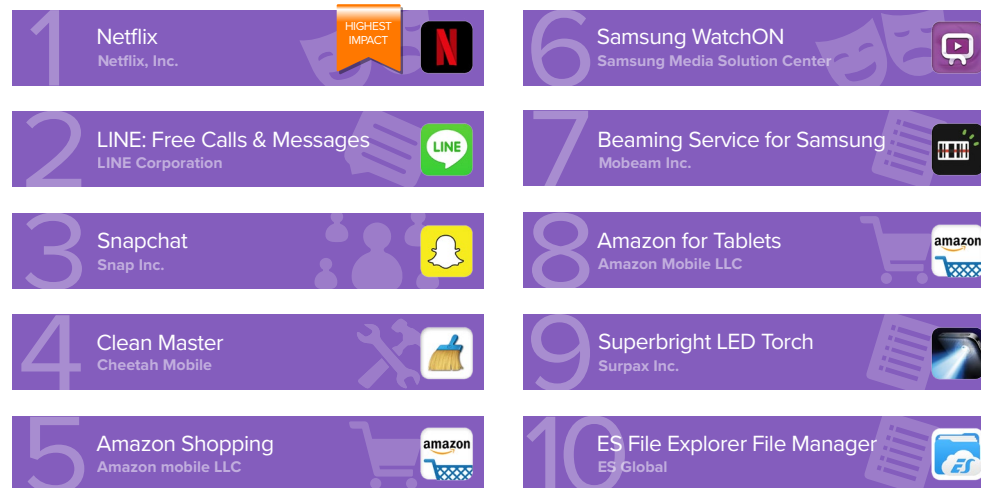


To prevent Google Play Books from consuming too much bandwidth, users should download the ebooks to their phone using the "Download only" setting and disable the more natural reading voice feature. This or a similar approach might also work in other apps that use the read aloud feature.

B Key Findings

Top Data Traffic Hogging Apps

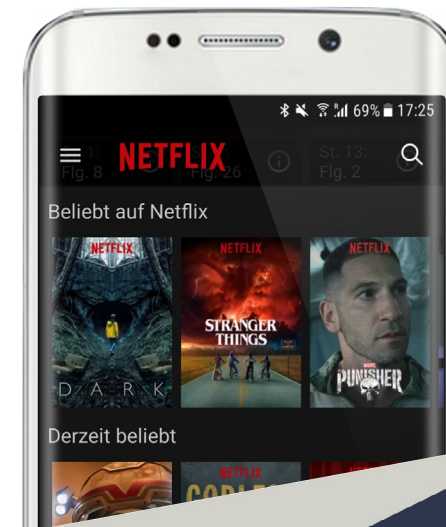
TOP 10 DATA TRAFFIC HOGS RUN BY USERS



CATEGORY: Communication Entertainment Productivity Shopping Social Tools

For the last year, **Netflix** has been the number one app that consumes the most megabytes (if not GB!) of data. Streaming an average sized movie or TV show can easily require 200-500 MB or more of data, if users choose to stream with higher quality. To avoid losing mobile data, users should only stream when connected to Wi-Fi, or download their favorite shows or films while connected to Wi-Fi, to view later on, on-the-go.

The **Superbright LED Flashlight** app is in the top 10 list of the most data hungry apps, likely caused by its constant display of ads. If data volume is an issue, it may be time to look for an alternative.



C Summary

Apps that break phones, but only if they are free to do so.

In the third year of publishing the Android App Performance & Trend Report, more and more of the top resource drainers are preinstalled by Google and Samsung.

Third party apps one wouldn't expect to drain a phone's battery or storage, like a simple flashlight or reading apps, are only the tip of the iceberg. Luckily, there is something users can do about the drain either from within the apps settings or our seven tips.

Avast's advice is to look very closely at which apps – both preinstalled and third-party apps – are really necessary to have and get rid of apps that are unnecessary. If users come across an app they truly love that drains battery life, they might want to consider looking for an alternative or limiting its background activities, like push notifications. Here are a few steps to help with excessive app drain:

✓ Free up space

Apps collect clutter over time. [Avast Cleanup for Android](#), can help users quickly get rid of temporary files to free up space.

✓ Limit notifications to save battery life, performance and mobile data

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

✓ Turn down brightness

Unless in bright sunlight, Avast recommends turning down the brightness level of a phone's display, as the displays of tablets and large smartphones can take up to 80% of a device's entire power consumption.

✓ Limit apps battery and performance drain

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

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

[Click here](#) to download the full PDF guide.



✓ Get rid of performance-sapping apps

The [Avast Cleanup](#) app analyzes the top battery, storage, and traffic-hogging apps to help users easily uninstall apps they no longer need.

✓ Turn off Wi-Fi, Bluetooth and GPS

To save battery life, turn off all hardware features not being used.

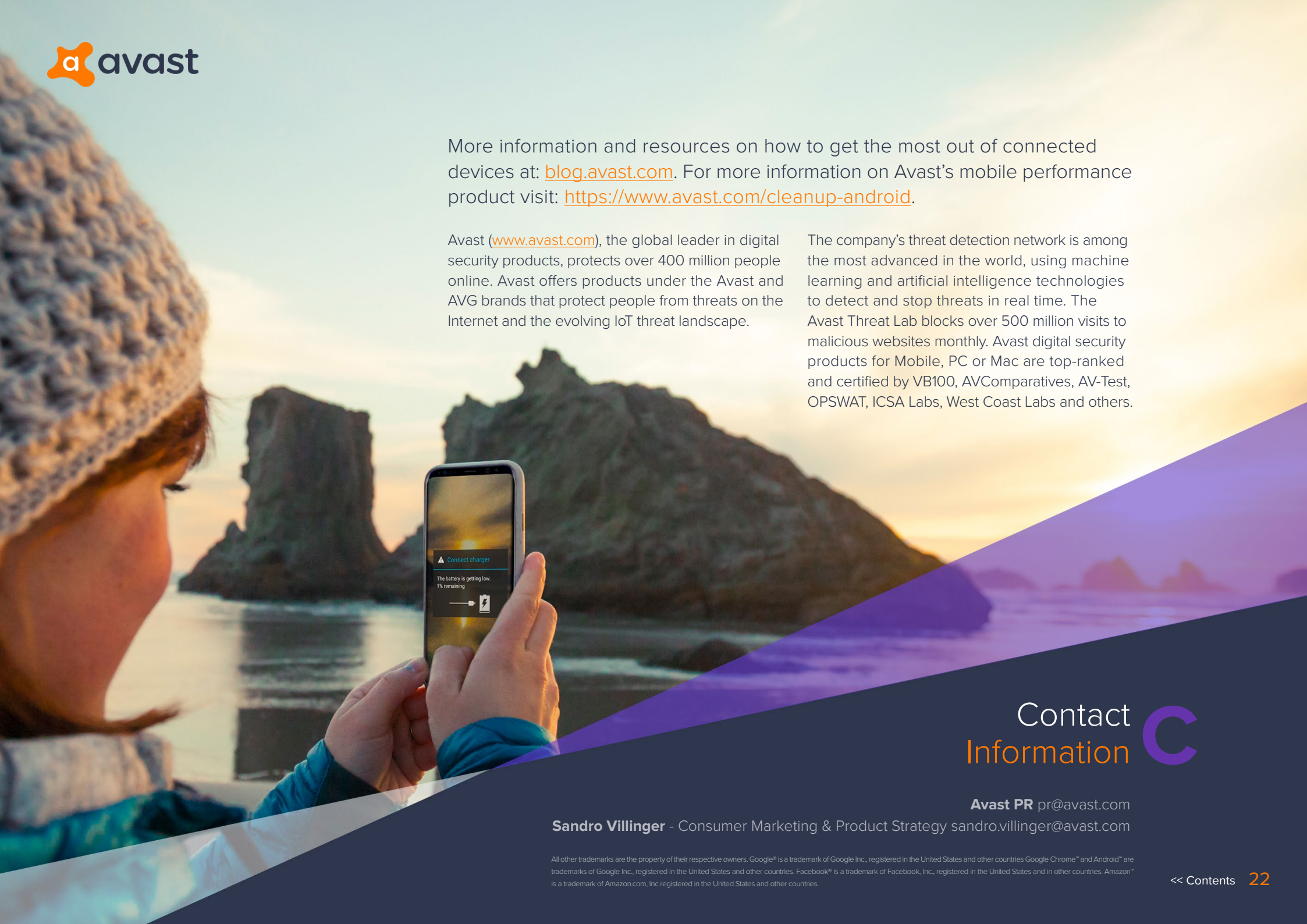
✓ Reduce data traffic

Turn off background data transfers or any offline reading features within apps to prevent them from consuming mobile data.

More information and resources on how to get the most out of connected devices at: blog.avast.com. For more information on Avast's mobile performance product visit: <https://www.avast.com/cleanup-android>.

Avast (www.avast.com), the global leader in digital security products, protects over 400 million people online. Avast offers products under the Avast and AVG brands that protect people from threats on the Internet and the evolving IoT threat landscape.

The company's threat detection network is among the most advanced in the world, using machine learning and artificial intelligence technologies to detect and stop threats in real time. The Avast Threat Lab blocks over 500 million visits to malicious websites monthly. Avast digital security products for Mobile, PC or Mac are top-ranked and certified by VB100, AVComparatives, AV-Test, OPSWAT, ICSA Labs, West Coast Labs and others.



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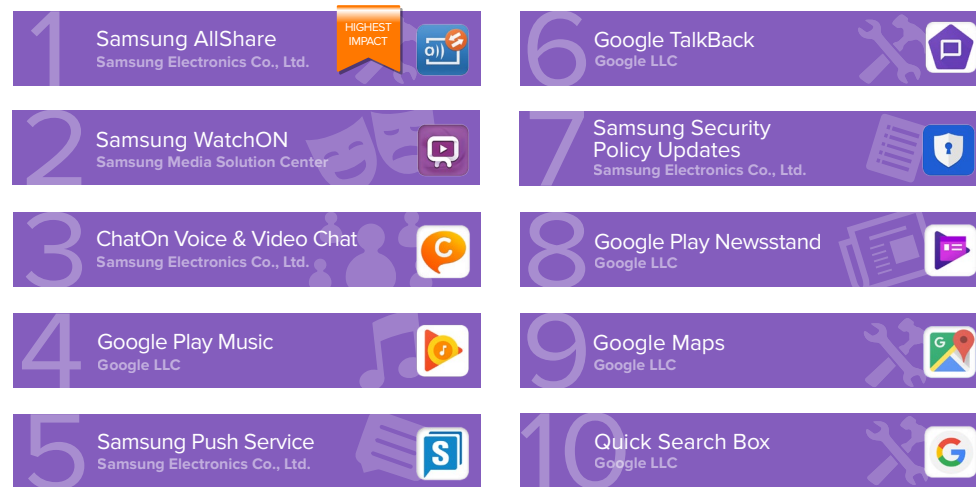


Appendix **D** App Resource Consumption Analysis

In this section, you can find the app resource consumption analysis for the United States and the United Kingdom. The same methods were applied to calculate the rankings in the following sections, as were used in the main part of the report. The below takes into account performance data from users in the United States and the United Kingdom.

D Appendix USA

TOP PERFORMANCE DRAINING APPS - EXCLUDING GAMES



CATEGORY: Social Communication Entertainment Tools Productivity Music & Audio Newspaper & Magazines

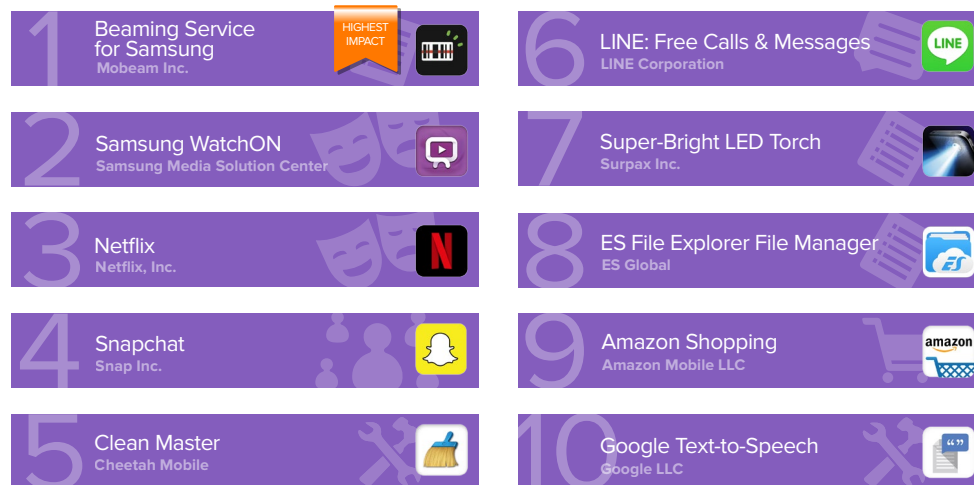
TOP BATTERY DRAINERS THAT RUN AT START UP



CATEGORY: Communication Productivity Tools Social Personalization

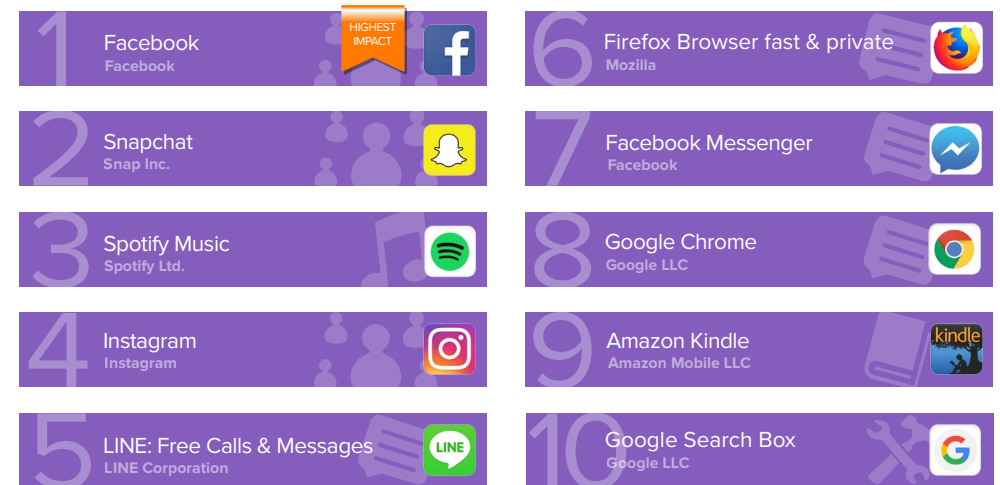
D Appendix USA

TOP BATTERY DRAINERS RUN BY USERS



CATEGORY: Social Tools Productivity Entertainment Shopping Communication

TOP 10 STORAGE EATERS - EXCLUDING GAMES



CATEGORY: Communication Social Books & Reference Tools Music & Audio

D Appendix

USA

TOP 10 DATA TRAFFIC HOGS - EXCLUDING GAMES

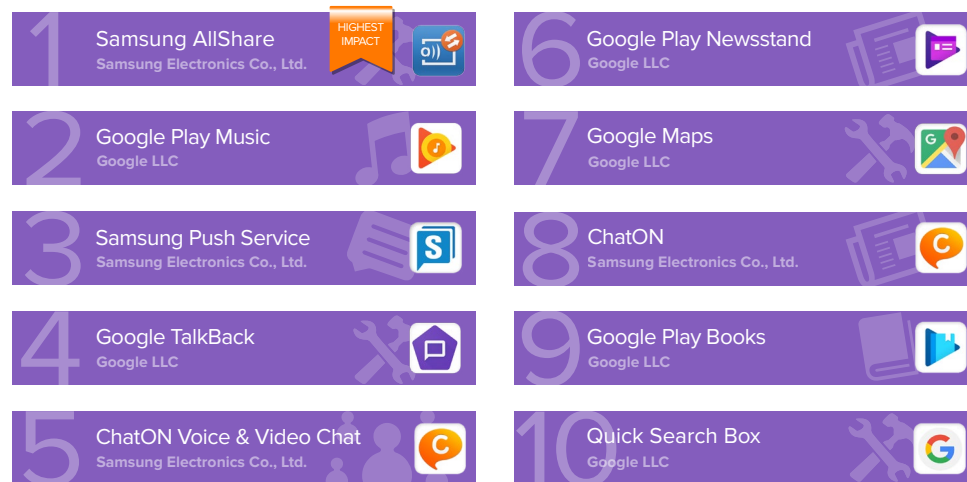


CATEGORY:  Social  Entertainment  Weather  Tools  Communication  Music & Audio

D Appendix

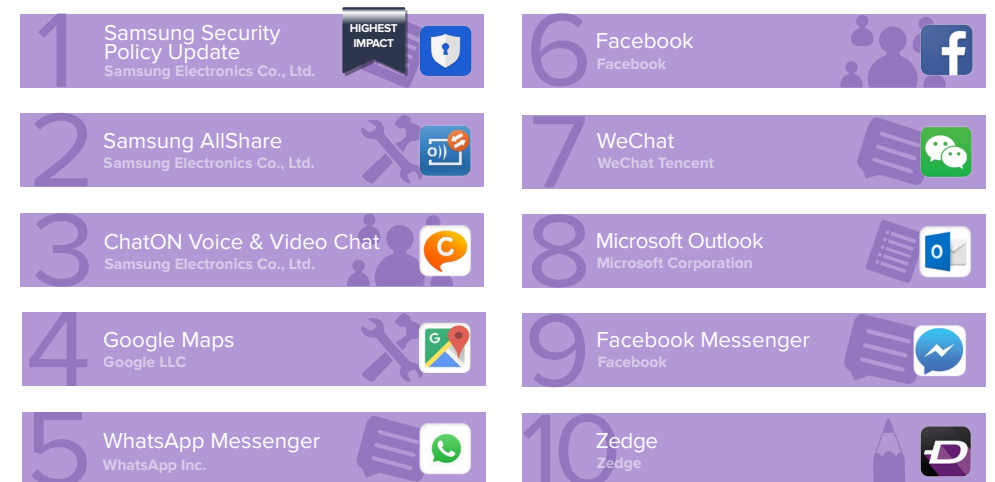
UNITED KINGDOM

TOP PERFORMANCE DRAINING APPS - EXCLUDING GAMES



CATEGORY: Social Communication Tools Newspaper & Magazines Books & Reference Music & Audio

TOP BATTERY DRAINERS THAT RUN AT START UP

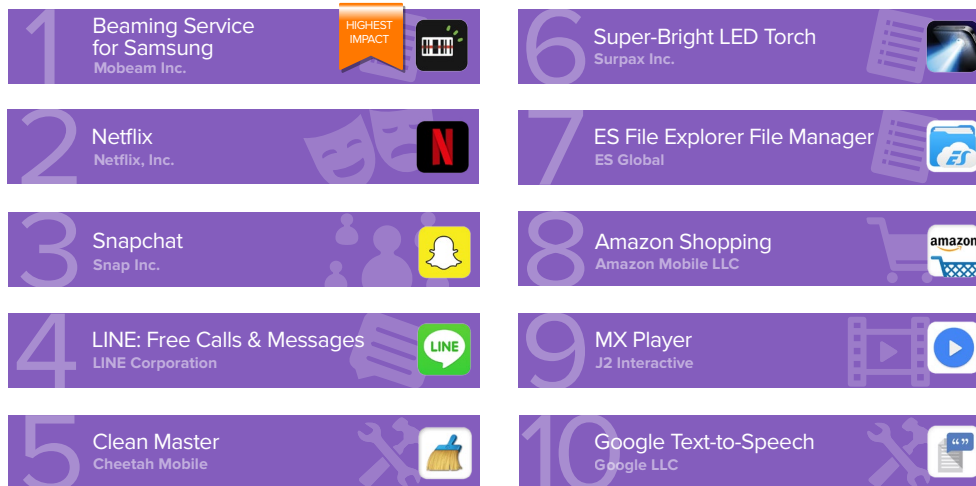


CATEGORY: Social Communication Tools Productivity Personalization

D Appendix

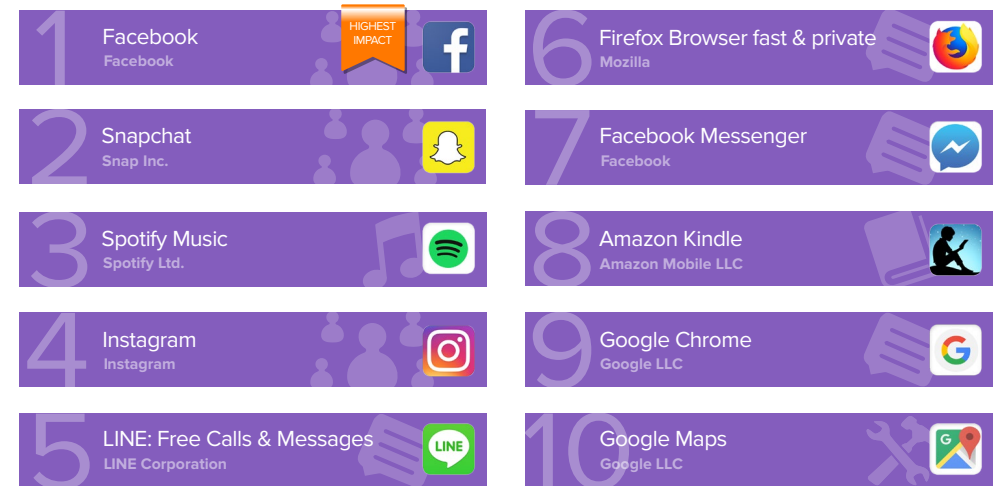
UNITED KINGDOM

TOP 10 BATTERY DRAINERS RUN BY USERS



CATEGORY: Social Tools Entertainment Media & Video Productivity Communication

TOP STORAGE EATERS - EXCLUDING GAMES

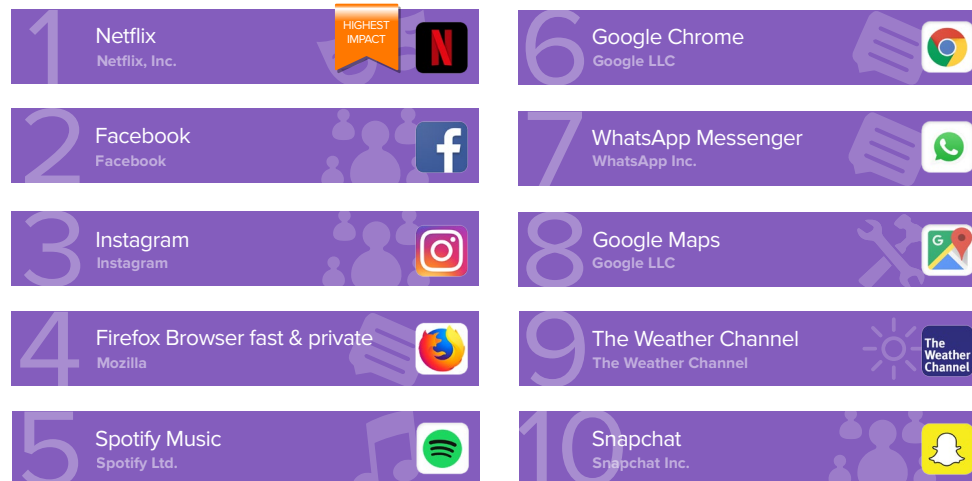


CATEGORY: Social Music & Audio Communication Books & Reference Tools

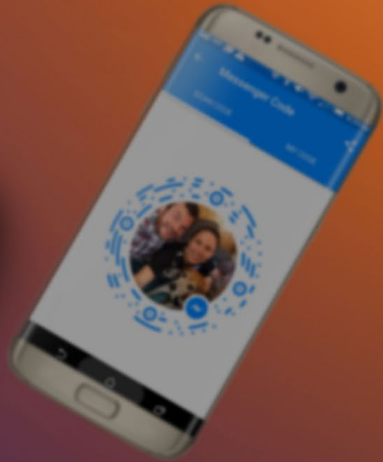
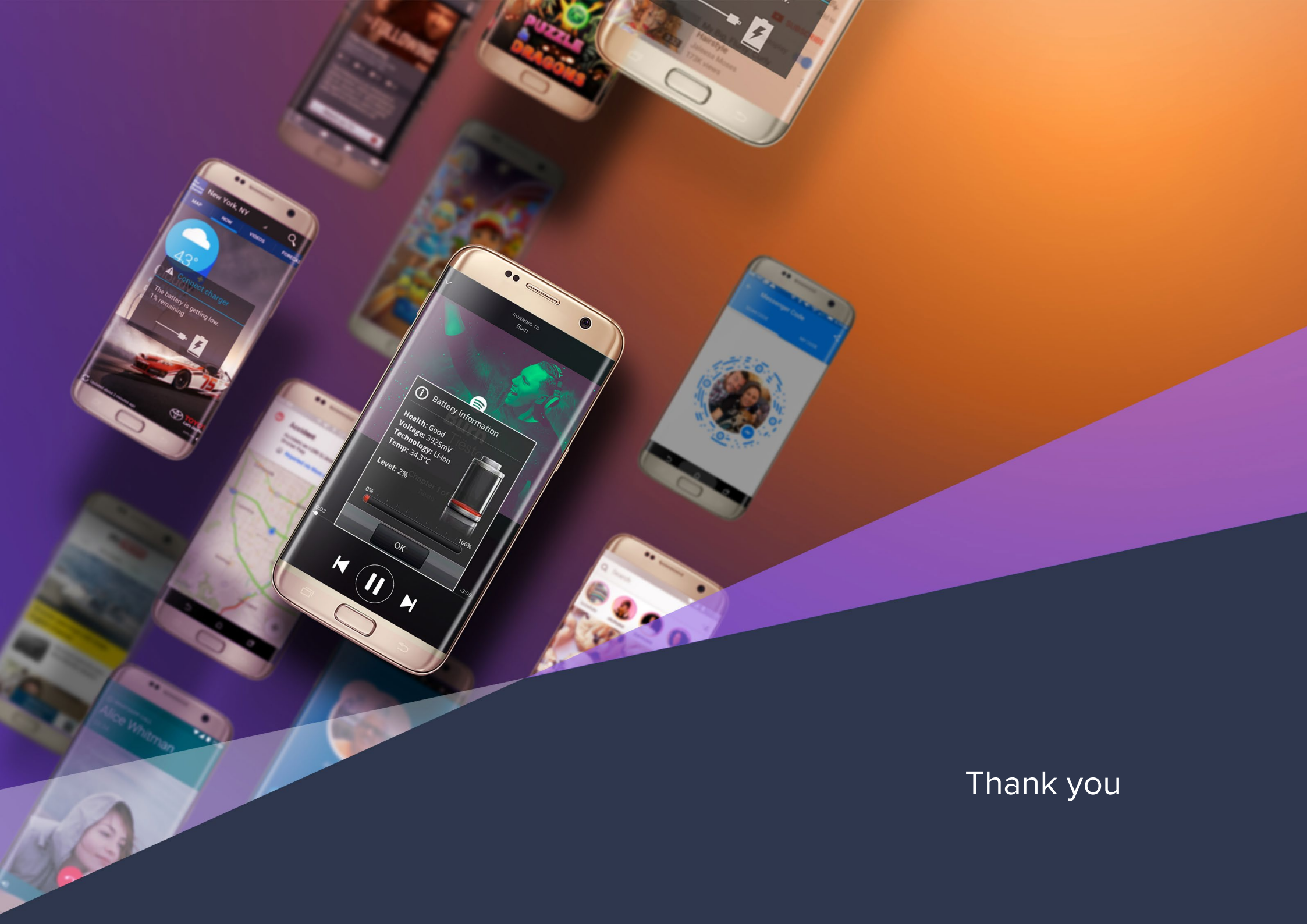
D Appendix

UNITED KINGDOM

TOP DATA TRAFFIC HOGS - EXCLUDING GAMES



CATEGORY:  Social  Music & Audio  Communication  Tools  Weather  Entertainment



Thank you