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Executive Summary


We generated this report from a sample of randomized and anonymized data collected from more than three million global Android users from January through April, 2016.

AVG found that during this period, the three apps that most impacted Android phone resources were SnapChat, YouTube and Google Maps. Our report further identified that among apps running automatically at start-up, Facebook Messenger and Instagram are the top performance drainers. In apps initiated by users, we also followed Spotify and LINE, which offers free calls and messages.

Methodology

1. The AVG Technologies 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.

2. The app data included in this report covers a time period of January 2016 through April 2016.

3. This Report only includes Google Play applications where AVG observed a minimum sample size of 50,000 usage incidents.
Executive Summary

Key Findings

**Snapchat** caches encrypted data from chats in your phone’s storage, even when you have already viewed those photos and videos, contradicting the notion that chats ‘self-destruct.’

**AppLock** turned up, during the time we collected data, among the Top 10 apps that drain devices, but appears to have fixed this issue with a more recent update. Top marks for making privacy useful and efficient.

**YouTube** is a big storage hog, planting a few hundred MB of cached data on your device. Keep this in mind if you are a regular viewer.

**First-timers** in this report include Google Maps, BlackBerry Messenger, Facebook Messenger, Instagram, ChatOn and, perhaps surprisingly, the Weather Channel.

**The average user** has installed 33 apps on their Android device.

**User’s favorite devices** tend to be older models; Samsung dominates with the Samsung Galaxy S5, S4 and S4 mini, and SIII and Note II among the most popular. Sony’s Xperia Z3, Z3 Compact and Z2 were next popular.

**Nintendo’s first mobile gaming app**, Miitomo, had around 127,000 installs at time of launch in March 2016 but this had dropped to 17,000 by May.

**50 most used Android apps** include many Google apps (unsurprisingly), plus the usual chat and messaging apps such as WhatsApp, Viber and Skype. More unexpected entries included eBay and TripAdvisor.

**Pokémon GO**: This H1 report doesn’t include the phenomenon that is Pokémon GO as it just hit the app stores in July 2016. However, AVG has analyzed the app for battery drain and provided tips for ways to manage it.
A Insights and Analysis

Snapchat Has a Compulsive Hoarding Disorder

Snapchat is certainly one of the hottest apps around, priding itself on its Mission Impossible-esque ‘self-destruct’ mechanism for photos and video clips. Ironically, the report shows that the app not only keeps cached data on your device, but is also a top drainer of storage. Snapchat keeps encrypted versions of some of the photos and videos you take (or receive, even if you’ve already viewed them and assume they’re gone forever. In our internal tests, one ten second video we received raised Snapchat’s internal cache from 48 to 59 MB, as seen in our AVG Cleaner for Android cache view. (figure 2)

Once we watched this video and replayed it one last time (to make sure it was ‘gone’ from the conversation), Snapchat’s cache was still only partially deleted, hovering around 60 MB. This increased with every photo and video we took. Digging deeper, we discovered that the ‘com.snapchat.android’ package on our Android phone contained subfolders ‘cache\received_image_snaps’ and ‘com.androidrenderscript.cache’, which store files hidden from the end user using a ‘.nomedia’ file.

Our advice: Use a cache cleaner like our own AVG Cleaner for Android to get rid of these leftovers automatically, or go to your Snapchat Profile, hit the settings icon and tap on Clear Browser Data and Clear Conversations to get rid of it.
Insights and Analysis

2 AppLock: Privacy vs. Battery

This was a newcomer on our list of top battery-draining apps, showing performance draining behavior across the timeframe of our report. The popular AppLock uses your fingerprint or a password to lock your messages, contacts, Facebook, settings or any app from prying eyes.

Many users complained in online forums about AppLock’s constant CPU usage and battery drain, both when the phone is in use and on standby.

To confirm this, we did our own tests once we were done collecting data, using AppLock over the course of 4 days to lock us out of 90% of our phone’s features and apps. The good news is that in our test scenarios, AppLock consumed less than 0.5% of battery power, suggesting more recent updates have likely fixed the power-hogging issues.
A Insights and Analysis

3 YouTube: Entertaining but Draining

Every time you enjoy your daily dose of PewDiePie, Smosh, HolaSoyGerman or any other YouTube channel using the official Android YouTube App, it caches files to your Android device. Not a lot, and the amount varies from device to device, but in our tests, when playing dozens of YouTube clips, we saw it go as high as 270 MB, which is why YouTube is among the top storage-eaters and performance-drainers.

4 The Usual Suspects: Care needed!

When we launched our first AVG Technologies Android App Performance & Trend Report in 2014, the apps draining mobile data, battery power and storage capacity were, as you might expect, the ones you launch and use regularly - including Snapchat, Spotify, Facebook and WhatsApp.

In this H1 2016 report, we again uncovered the apps that eat up your devices’ performance even when you’re not using them. Turns out we’re seeing a somewhat new line-up, including Google Maps, Facebook Messenger, Instagram, BlackBerry Messenger, ChatOn, and - to our surprise - the Weather Channel, which appeared in our U.S. data. All of these constantly drain your resources while running in the background.
The Average Android User has 33 Apps Installed

Our analysis also revealed the average number of apps users install. Those who use popular media apps such as Spotify, VLC Player or Shazam tend to have an average of 33 installed apps. Users of lesser known media apps, like Deezer or FM Radio, and fitness apps such as MyTracks, tended to have an average of more than 40 apps installed, though why this might be the case isn’t obvious.

Nintendo’s Miitomo: Game on, Game off?

A leader in the gaming industry, Nintendo finally released its first real mobile app - Miitomo - in March 2016. Miitomo allows you to create a Nintendo Mii character and use it to communicate with your peers, play games and send photos or stamps. It’s a fun app, but its popularity seems to have waned as we tracked how the massive spike in installs right after the launch of around 127,000 dwindled to a mere 17,000 installs in May.
### Insights and Analysis

#### Top Mobile Devices in H1 2016

In last year’s final App Report (Q3 2015), Samsung dominated the list of most-used smartphones across the analyzed user base. This year, however, we’ve seen Sony sustain users with 3 of its older smartphones - the Xperia Z3, the Z3 Compact and the Z2 – entering the Top 10 instead of just one (2015). While Samsung still dominates the market, the most widely used phones - despite all the current marketing that might lead you to think otherwise - appear to be 2014’s Samsung Galaxy S5, 2013’s Galaxy S4 and S4 Mini and 2012’s Galaxy SIII and Note II.

#### BBC Ups the Auntie on your Battery

In our U.K. data, we saw not one, but two BBC apps consuming the most battery power in comparison to other apps. BBC iPlayer isn’t a surprise, as it streams videos and has appeared in our previous app reports as a result, but the BBC News app’s heavy information stream also puts more pressure on devices than you might think.

### Most Used Devices H1 2016

1. **Samsung GT-N7100**
   - **Galaxy Note II 32GB**
   - **Google Android 4.1.1**

2. **Samsung GT-i9195F3**
   - **Galaxy S4 Mini LTE**
   - **Google Android 4.2.2 (Japanese)**

3. **Samsung GT-i9300I**
   - **Galaxy S3 Neo+ Duos/S3 Neo**
   - **Google Android 4.3**

4. **Samsung GT-i9301I**
   - **Galaxy S3 Neo/Galaxy S3 VE**
   - **Google Android 4.4.2**

5. **Samsung GT-i9500**
   - **Galaxy S4 La Fleur Edition**
   - **Google Android 4.3**

6. **Samsung GT-i9505**
   - **Galaxy S4 Black Edition 32GB**
   - **Google Android 4.2.2**

7. **Samsung SM-G900MD**
   - **Galaxy S5 Duos 4G LTE-A**
   - **Google Android 4.4**

8. **Sony Xperia Z3 Compact**
   - **LTE-A D5803 M55w**
   - **Google Android 4.4.2**

9. **Sony Xperia Z2**
   - **LTE-A D6503 (Sony Sirius Gina)**
   - **Google Android 4.4.4**

10. **Samsung SM-G900MD**
    - **Galaxy S5 Duos 4G LTE-A**
    - **Google Android 4.4.4**
# Key Findings - H1 2016

## Top 50 Most Commonly Used Android Apps

<table>
<thead>
<tr>
<th>Rank</th>
<th>App Name</th>
<th>Image</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Google Play Store</td>
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</tr>
<tr>
<td>2</td>
<td>Google Plus</td>
<td><img src="image" alt="Google Plus" /></td>
</tr>
<tr>
<td>3</td>
<td>Quick Search Box</td>
<td><img src="image" alt="Quick Search Box" /></td>
</tr>
<tr>
<td>4</td>
<td>YouTube</td>
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<tr>
<td>5</td>
<td>Facebook</td>
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<td>6</td>
<td>Google Chrome</td>
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<tr>
<td>7</td>
<td>Google Maps</td>
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</tr>
<tr>
<td>8</td>
<td>Google Hangouts</td>
<td><img src="image" alt="Google Hangouts" /></td>
</tr>
<tr>
<td>9</td>
<td>Samsung Push Service</td>
<td><img src="image" alt="Samsung Push Service" /></td>
</tr>
<tr>
<td>10</td>
<td>Google Play Music</td>
<td><img src="image" alt="Google Play Music" /></td>
</tr>
<tr>
<td>11</td>
<td>Facebook Messenger</td>
<td><img src="image" alt="Facebook Messenger" /></td>
</tr>
<tr>
<td>12</td>
<td>Google Mail</td>
<td><img src="image" alt="Google Mail" /></td>
</tr>
<tr>
<td>13</td>
<td>WhatsApp</td>
<td><img src="image" alt="WhatsApp" /></td>
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<tr>
<td>14</td>
<td>Google Play Newsstand</td>
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<tr>
<td>15</td>
<td>S Suggest</td>
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<tr>
<td>16</td>
<td>AllShareCast Dongle</td>
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</tr>
<tr>
<td>17</td>
<td>ChatON</td>
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</tr>
<tr>
<td>18</td>
<td>Samsung Accounts</td>
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<tr>
<td>19</td>
<td>Instagram</td>
<td><img src="image" alt="Instagram" /></td>
</tr>
<tr>
<td>20</td>
<td>Google Drive</td>
<td><img src="image" alt="Google Drive" /></td>
</tr>
<tr>
<td>21</td>
<td>Viber</td>
<td><img src="image" alt="Viber" /></td>
</tr>
<tr>
<td>22</td>
<td>Skype Free IM &amp; Video</td>
<td><img src="image" alt="Skype" /></td>
</tr>
<tr>
<td>23</td>
<td>LINE : Free Calls &amp; Messages</td>
<td><img src="image" alt="LINE" /></td>
</tr>
<tr>
<td>24</td>
<td>Dropbox</td>
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<tr>
<td>25</td>
<td>Flipboard</td>
<td><img src="image" alt="Flipboard" /></td>
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<tr>
<td>26</td>
<td>Twitter</td>
<td><img src="image" alt="Twitter" /></td>
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<tr>
<td>27</td>
<td>Samsung Groupcast</td>
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</tr>
<tr>
<td>28</td>
<td>AllShare Cast</td>
<td><img src="image" alt="AllShare Cast" /></td>
</tr>
<tr>
<td>29</td>
<td>Clean Master</td>
<td><img src="image" alt="Clean Master" /></td>
</tr>
<tr>
<td>30</td>
<td>Google Text to Speech</td>
<td><img src="image" alt="Google Text to Speech" /></td>
</tr>
<tr>
<td>31</td>
<td>Google Books</td>
<td><img src="image" alt="Google Books" /></td>
</tr>
<tr>
<td>32</td>
<td>Google Videos</td>
<td><img src="image" alt="Google Videos" /></td>
</tr>
<tr>
<td>33</td>
<td>Samsung Knox</td>
<td><img src="image" alt="Samsung Knox" /></td>
</tr>
<tr>
<td>34</td>
<td>Google Photos</td>
<td><img src="image" alt="Google Photos" /></td>
</tr>
<tr>
<td>35</td>
<td>Google Cloud</td>
<td><img src="image" alt="Google Cloud" /></td>
</tr>
<tr>
<td>36</td>
<td>Google Account Services</td>
<td><img src="image" alt="Google Account Services" /></td>
</tr>
<tr>
<td>37</td>
<td>Yahoo! Mail</td>
<td><img src="image" alt="Yahoo! Mail" /></td>
</tr>
<tr>
<td>38</td>
<td>YouTube Studio</td>
<td><img src="image" alt="YouTube Studio" /></td>
</tr>
<tr>
<td>39</td>
<td>Google Talkback</td>
<td><img src="image" alt="Google Talkback" /></td>
</tr>
<tr>
<td>40</td>
<td>IMO Videotalk</td>
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</tr>
<tr>
<td>41</td>
<td>OfficeSuite B + PDF Editor</td>
<td><img src="image" alt="OfficeSuite B + PDF Editor" /></td>
</tr>
<tr>
<td>42</td>
<td>TripAdvisor</td>
<td><img src="image" alt="TripAdvisor" /></td>
</tr>
<tr>
<td>43</td>
<td>Amazon Kindle</td>
<td><img src="image" alt="Amazon Kindle" /></td>
</tr>
<tr>
<td>44</td>
<td>Google News &amp; Weather</td>
<td><img src="image" alt="Google News &amp; Weather" /></td>
</tr>
<tr>
<td>45</td>
<td>eBay</td>
<td><img src="image" alt="eBay" /></td>
</tr>
<tr>
<td>46</td>
<td>WeChat</td>
<td><img src="image" alt="WeChat" /></td>
</tr>
<tr>
<td>47</td>
<td>MX Player</td>
<td><img src="image" alt="MX Player" /></td>
</tr>
<tr>
<td>48</td>
<td>JRDCom Weather</td>
<td><img src="image" alt="JRDCom Weather" /></td>
</tr>
<tr>
<td>49</td>
<td>Lenovo Anyshare</td>
<td><img src="image" alt="Lenovo Anyshare" /></td>
</tr>
<tr>
<td>50</td>
<td>Pinterest</td>
<td><img src="image" alt="Pinterest" /></td>
</tr>
</tbody>
</table>

### Google wins on Google Android

Being baked into most Android devices, the dominance of Google’s own apps and services isn’t surprising. Google Play, Google+, the Search box or even YouTube are among the most commonly used apps. What did surprise us, however, given Google’s dominance, is that Gmail experienced quite a drop in overall popularity among our sampled user base, going down from Rank 4 (used by 77% of the users sampled) to 14 (roughly 50%).
Key Findings - H1 2016
Top 50 Most Commonly Used Android Apps cont…

Samsung holds firm with Android fans
Likely tied to the dominance of Samsung in the Most Used Devices category, Samsung apps are still widely used. For example, the Samsung GroupShare (AllShareCast) app, which comes pre-installed with certain Samsung phones and lets you share files or your screen, did show up as a resource-drainer.

TripAdvisor
Another fresh face, this app’s inclusion might not be such a surprise given how the mobile website constantly pushes users to download and convert to the app.

OfficeSuite + PDF Editor
A newcomer in the popularity contest, its inclusion could indicate that mobile phone productivity is on the rise.

Snapchat
Not in the Top 50, but coming in at number 76, is Snapchat. Generally regarded as a widely used app and also appearing quite high in our list of most resource-hungry apps, it’s strangely not one of the 50 most popular apps with our user base.
### Key Findings - H1 2016

**World’s Greediest Mobile Apps**

In this section, we reveal which apps had the most overall impact on mobile devices.

<table>
<thead>
<tr>
<th>TOP 10 PERFORMANCE-DRAINING APPS THAT RUN AT START-UP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong> Facebook</td>
</tr>
<tr>
<td>Facebook</td>
</tr>
<tr>
<td><strong>2.</strong> Google Maps</td>
</tr>
<tr>
<td>Google Inc</td>
</tr>
<tr>
<td><strong>3.</strong> Facebook Messenger</td>
</tr>
<tr>
<td>Facebook</td>
</tr>
<tr>
<td><strong>4.</strong> Instagram</td>
</tr>
<tr>
<td>Instagram</td>
</tr>
<tr>
<td><strong>5.</strong> BBM (BlackBerry Messenger)</td>
</tr>
<tr>
<td>BlackBerry Limited</td>
</tr>
</tbody>
</table>

**Analysis**

As before, the number one app that drains your battery and starts up automatically in the background is Facebook. But interestingly, Google Maps came out of nowhere to take second place. We can only speculate why. Is it because people use it more and more to go from place to place? Or did the resource utilization increase with a recent update? In any case, our advice is to use the app’s ‘Offline Area’ feature, which lets you download complete maps to your phone without taxing battery life or mobile data.
Key Findings - H1 2016

World’s Greediest Mobile Apps Cont…

**TOP 10 PERFORMANCE-DRAINING APPS RUN BY USERS**

<table>
<thead>
<tr>
<th>Rank</th>
<th>App Name</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Snapchat</td>
<td>Social</td>
</tr>
<tr>
<td>2</td>
<td>Spotify</td>
<td>Music &amp; Audio</td>
</tr>
<tr>
<td>3</td>
<td>LINE: Free Calls &amp; Messages</td>
<td>Communication</td>
</tr>
<tr>
<td>4</td>
<td>Samsung WatchOn</td>
<td>Communication</td>
</tr>
<tr>
<td>5</td>
<td>Clean Master</td>
<td>Tools</td>
</tr>
<tr>
<td>6</td>
<td>Microsoft Outlook</td>
<td>Entertainment</td>
</tr>
<tr>
<td>7</td>
<td>Amazon Shopping</td>
<td>Shopping</td>
</tr>
<tr>
<td>8</td>
<td>SoundCloud</td>
<td>Productivity</td>
</tr>
<tr>
<td>9</td>
<td>BBC iPlayer</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Mozilla Browser</td>
<td></td>
</tr>
</tbody>
</table>

**Analysis**

No shockers here. If you actively run multi-media apps like Spotify, Outlook or SoundCloud, you are likely to find your battery drains faster than if you were just texting or reading the news.

However, we were pleasantly surprised to see that our previously ever-present top 10 resource drainer Netflix seems to have improved usage enough to get itself off the list for performance drain. One of the most popular apps in the United States, Netflix is shown in our tests to be still heavy on battery usage (see below), but its mobile data usage and local cache usage have apparently decreased after recent updates.
Key Findings - H1 2016
Top Ten Battery Drainers

In this category are apps which run automatically when you turn on your smartphone or tablet and keep running in the background all the time as part of their core functionality. This could, for example, include antivirus apps, messaging apps and social apps.

**TOP 10 BATTERY-DRAINERS THAT RUN AT START-UP**

1. **Samsung AllShare**
   Samsung Electronics Co, Ltd.

2. **Samsung Security Policy Updates**
   SAMSUNG OTA SOFTWARE UPDATE

3. **Beaming Service for Samsung**
   Mobeam Inc.

4. **ChatON**
   Samsung Electronics Co, Ltd.

5. **Google Maps**
   Google Inc

6. **Facebook**
   Facebook

7. **WhatsApp**
   WhatsApp Inc.

8. **WeChat**
   WeChat Tencent

9. **AppLock**
   DoMobile Lab

10. **BBM (BlackBerry Messenger)**
    BlackBerry Limited

**Category:** Social | Communication | Productivity | Tools

**Analysis**

Using these background apps will increase the drain on your smartphone’s battery.

**Our advice:** One way to improve battery life is to uninstall or disable apps you may not need on a constant basis (such as Samsung AllShare, now known as “Samsung Link”). If you don’t use Facebook regularly, try accessing it via mobile browser instead. This way you only use battery and storage when you check the app, and it won’t constantly be running in the background.
Key Findings - H1 2016
Top Ten Battery Drainers Cont...

Analysis

WatchOn, Samsung’s remote control app that’s since been replaced by a newer version under the Peel banner, came preinstalled with many Samsung phones, so you may not even know you have it. Yet it may be constantly running in the background, draining your power.

Our advice: Find the app on your phone and disable Show Remote Control on the Notification Panel (the option are called Quick Remote Widget and Quick Notification Widget).
## Key Findings - H1 2016

### Top Ten Storage Hogs

<table>
<thead>
<tr>
<th>Rank</th>
<th>App Name</th>
<th>Category</th>
<th>Storage Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Facebook</td>
<td>Social</td>
<td>Highest Impact</td>
</tr>
<tr>
<td>2</td>
<td>Amazon Kindle</td>
<td>Communication</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Google Chrome</td>
<td>Tools</td>
<td></td>
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<tr>
<td>4</td>
<td>Sp-Mode Mail</td>
<td>Travel &amp; Local</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Google Maps</td>
<td>Books &amp; Reference</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Skype Free IM &amp; Video</td>
<td>Social</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Facebook Messenger</td>
<td>Social</td>
<td></td>
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<tr>
<td>8</td>
<td>YouTube</td>
<td>Media &amp; Video</td>
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<tr>
<td>9</td>
<td>Instagram</td>
<td>Social</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Tango</td>
<td>Social</td>
<td></td>
</tr>
</tbody>
</table>

**Analysis**

Chatterboxes beware: **Skype, Tango, Facebook Messenger** (and all other email providers) keep a cache on your phone that might include photos, videos, documents and other attachments you’ve sent or received.

**Our advice:** Clean the cache with an appropriate tool or delete your chat logs every few weeks to keep your phone from bloating.
B Key Findings - H1 2016
Top Ten Storage Hogs Cont...

**TOP 10 STORAGE-EATERS RUN BY USERS**

1. **Spotify**
   - Spotify Ltd.
   - Spotify Ltd.

2. **Snapchat**
   - Snapchat Inc
   - Snapchat

3. **LINE: Free Calls & Messages**
   - LINE Corporation
   - LINE

4. **SoundCloud**
   - SoundCloud
   - SoundCloud

5. **Mozilla Browser**
   - Mozilla
   - Mozilla Browser

6. **Amazon Shopping**
   - Amazon Mobile LLC
   - Amazon

7. **Clean Master**
   - Cheetah Mobile
   - Clean Master

8. **Samsung WatchON**
   - Samsung Media Solution Center
   - Samsung WatchON

9. **Microsoft Outlook**
   - Microsoft Corporation
   - Microsoft Outlook

10. **Netflix**
    - Netflix, Inc.
    - Netflix

**CATEGORY:**
- Music & Audio
- Shopping
- Communication
- Tools
- Social
- Productivity

**Analysis**

**Spotify** is the number-one storage hog, as it needs a huge cache to stream music and, in the Premium version, can also store songs offline.

**Our advice:** If you don’t have the absolute highest end headphones or speakers connected to your Android device, there’s little point in using higher quality settings, so make sure it’s all set to ‘Normal’ to keep your storage usage down.

Also make sure to clean up your browsers (see **Mozilla** in spot 5) or the **Amazon shopping** app (which is essentially a mobile shopping browser) before they chew through your device’s space.
### Key Findings - H1 2016

**Top Ten Data Traffic Hogs**

**TOP 10 DATA TRAFFIC HOGS THAT RUN AT START-UP**

<table>
<thead>
<tr>
<th>Rank</th>
<th>App Name</th>
<th>CATEGORY</th>
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<tbody>
<tr>
<td>1</td>
<td>Facebook</td>
<td>Social</td>
</tr>
<tr>
<td>2</td>
<td>The Weather Channel</td>
<td>Weather</td>
</tr>
<tr>
<td>3</td>
<td>Instagram</td>
<td>Social</td>
</tr>
<tr>
<td>4</td>
<td>Google Maps</td>
<td>Tools</td>
</tr>
<tr>
<td>5</td>
<td>Clean Master</td>
<td>Communications</td>
</tr>
<tr>
<td>6</td>
<td>Beaming Service for Samsung</td>
<td>Tools</td>
</tr>
<tr>
<td>7</td>
<td>BBM (BlackBerry Messenger)</td>
<td>Social</td>
</tr>
<tr>
<td>8</td>
<td>WhatsApp</td>
<td>Social</td>
</tr>
<tr>
<td>9</td>
<td>Facebook Messenger</td>
<td>Social</td>
</tr>
<tr>
<td>10</td>
<td>DU Speed Booster &amp; Cleaner</td>
<td>Tools</td>
</tr>
</tbody>
</table>

**Analysis**

Mobile data is precious, especially when there's no Wi-Fi to be found, making it all the more important to keep a close eye on traffic hogs, whether you run them (below) or whether they kick in automatically at start-up and run continuously in the background.

You can silence Facebook, which is at the top of our list, by using the web version or some of our tips and tricks (see the AVG Android Performance Guide). Other apps should simply never consume that much space under any circumstances, for example, the Weather Channel, so you might want to consider switching to an alternative if your mobile data runs out quickly when using it.
Analysis
Newcomer ES File Explorer might surprise you at first. Why would a local file explorer be responsible for traffic consumption? Simple: it can be used as a download manager too, so many downloaded apps (outside the Google Play Store), videos, documents or other files go through ES FE, which explains its spot in the Top 10. However, apps like Google News or Samsung WatchOn should not consume that much mobile traffic overall and should be avoided if there’s no secure Wi-Fi in range.

In other news, Netflix, having previously held the number one spot, made it off the list of top traffic hogs, likely due to the improved compression techniques mentioned above. Nice work, Netflix.
Many of the games you love the most can heavily impact your device performance, so if you are watching your battery or storage levels, you might want to choose when to use these apps.

### Analysis

Not much has changed in the list of top resource-hungry games since the last report. **Clash of Clans** holds the spot for the highest overall performance usage and is an app you should avoid if battery life or storage is an issue for you.

Newcomer **My Talking Tom** has replaced its sibling app, **My Talking Angela**. But it doesn’t matter what game you play, as all of the apps above hog your device storage more than most other apps. Why? Because they constantly access the GPU (Graphics Processing Unit) of your smartphone, which tends to drain the most resources across the board.

In future, we will be watching the newly launched location-based game **Nintendo GO** with interest to see if it appears in our H2 lists.
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.

- **Limit notifications to save battery life, performance and mobile data**
  Phone notifications are one of the most useful mobile inventions, giving users information they 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 & 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 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 the brightness levels down to 50–70%. 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 AVG Cleaner for Android 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.
Contact Information

For further information, please visit:

Our blogs, press information and resources on how to get the most out of your connected devices at AVG Now: [http://now.avg.com](http://now.avg.com)


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Apple® is a trademark of Apple Inc., registered in the United States and other countries.
In this section, you can find the app resource consumption analysis for the United States and the United Kingdom. We used the same methods to calculate the rankings as before, but this time only took into account performance data of users from these specific countries.
D Appendix

TOP 10 PERFORMANCE DRAINING APPS – EXCLUDING GAMES

1. Facebook
2. Snapchat
3. Google Maps
4. Clean Master
5. Instagram
6. Facebook Messenger
7. Netflix
8. Skype Free IM & Video
9. Samsung WatchON
10. Amazon Kindle

TOP 10 BATTERY DRAINERS THAT RUN AT START UP

1. Samsung AllShare
2. Samsung Security Policy Updates
3. Beaming Service for Samsung
4. Google Maps
5. Facebook
6. WhatsApp
7. Lookout Security & AntiVirus
8. Kik Messenger
9. Facebook Messenger
10. Google Chrome
**Appendix**

**USA**

### TOP 10 BATTERY DRAINERS RUN BY USER

1. Samsung WatchON  
   Samsung Media Solution Center
2. Snapchat  
   Snapchat Inc
3. Netflix  
   Netflix Inc
4. Clean Master  
   Cheetah Mobile
5. Amazon Shopping  
   Amazon Mobile LLC
6. Amazon Shopping  
   Amazon Mobile LLC
7. Walmart Mobile  
   Walmart
8. Google Text to Speech  
   Google Inc
9. Google Plus  
   Google Inc
10. Google Newsstand  
    Google Inc

### TOP 10 STORAGE EATERS – EXCLUDING GAMES

1. Facebook  
   Facebook
2. Snapchat  
   Snapchat Inc
3. Google Chrome  
   Google Inc
4. Amazon Kindle  
   Amazon Mobile LLC
5. Skype Free IM & Video  
   Skype
6. Google Maps  
   Google Inc
7. Quick Search Box  
   Google Inc
8. Instagram  
   Instagram
9. Facebook Messenger  
   Facebook
10. Pinterest  
    Pinterest Inc

**CATEGORY:** Newspaper, Magazines, Shopping, Social, Entertainment, Tools

**CATEGORY:** Communication, Social, Books & Reference, Tools
D Appendix

USA

TOP 10 DATA TRAFFIC HOGS - EXCLUDING GAMES

1. Netflix
2. Facebook
3. Snapchat
4. The Weather Channel
5. Weather Bug
6. Google Maps
7. Instagram
8. Clean Master
9. Beaming Service for Samsung
10. Yahoo! Mail

CATEGORY: Productivity, Social, Entertainment, Weather, Tools, Communication
### Appendix

**UNITED KINGDOM**

#### Top 10 Performance Draining Apps – Excluding Games

<table>
<thead>
<tr>
<th>Rank</th>
<th>App Name</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Facebook</td>
<td>Social</td>
</tr>
<tr>
<td>2</td>
<td>Google Maps</td>
<td>Communication</td>
</tr>
<tr>
<td>3</td>
<td>Instagram</td>
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<td>5</td>
<td>Clean Master</td>
<td>Tools</td>
</tr>
<tr>
<td>6</td>
<td>Yahoo! Mail</td>
<td>Social</td>
</tr>
<tr>
<td>7</td>
<td>Twitter</td>
<td>Social</td>
</tr>
<tr>
<td>8</td>
<td>Skype Free IM &amp; Video</td>
<td>Tools</td>
</tr>
<tr>
<td>9</td>
<td>BBC News</td>
<td>Productivity</td>
</tr>
<tr>
<td>10</td>
<td>Google Chrome</td>
<td>Music &amp; Audio</td>
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</table>

#### Top 10 Battery Drainers That Run at Start Up

<table>
<thead>
<tr>
<th>Rank</th>
<th>App Name</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Samsung AllShare</td>
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<td>Google Play Music</td>
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<td>Google Chrome</td>
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</tr>
</tbody>
</table>

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*Samsung Electronics Co., Ltd.*

*WhatsApp Inc.*

*Google Inc.*

*Yahoo*
## TOP 10 BATTERY DRAINERS RUN BY USER

<table>
<thead>
<tr>
<th>Ranking</th>
<th>App Name</th>
<th>Publisher</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>BBC News</td>
<td>Media Applications Technologies for the BBC Entertainment</td>
</tr>
<tr>
<td>2</td>
<td>Clean Master</td>
<td>Cheetah Mobile</td>
</tr>
<tr>
<td>3</td>
<td>BBC iPlayer</td>
<td>Media Applications Technologies for the BBC Entertainment</td>
</tr>
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<td>4</td>
<td>Google Plus</td>
<td>Google Inc</td>
</tr>
<tr>
<td>5</td>
<td>Google Text to Speech</td>
<td>Google Inc</td>
</tr>
<tr>
<td>6</td>
<td>Google Newsstand</td>
<td>Google Inc</td>
</tr>
<tr>
<td>7</td>
<td>Flipboard: Your News Magazine</td>
<td>Flipboard</td>
</tr>
<tr>
<td>8</td>
<td>Google Docs</td>
<td>Google Inc</td>
</tr>
<tr>
<td>9</td>
<td>Google Books</td>
<td>Google Inc</td>
</tr>
<tr>
<td>10</td>
<td>Facebook</td>
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</tr>
</tbody>
</table>

## TOP 10 STORAGE EATERS - EXCLUDING GAMES

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<td>Amazon Mobile LLC</td>
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<td>Skype</td>
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<td>Google Inc</td>
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<tr>
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<td>Instagram</td>
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<tr>
<td>7</td>
<td>Facebook Messenger</td>
<td>Facebook</td>
</tr>
<tr>
<td>8</td>
<td>Quick Search Box</td>
<td>Google Inc</td>
</tr>
<tr>
<td>9</td>
<td>YouTube</td>
<td>Google Inc</td>
</tr>
<tr>
<td>10</td>
<td>Clean Master</td>
<td>Cheetah Mobile</td>
</tr>
</tbody>
</table>

### CATEGORY
- Social
- Tools
- Entertainment
- Newspaper & Magazines
- Books & Reference
- Productivity

### CATEGORY
- Social
- Media & Video
- Communication
- Books & Reference
- Tools
Appendix

UNITED KINGDOM

TOP 10 DATA TRAFFIC HOGS - EXCLUDING GAMES

1. Facebook
2. Instagram
3. Google Maps
4. Yahoo! Mail
5. BBC News
6. Clean Master
7. Facebook Messenger
8. Skype Free IM & Video
9. Twitter
10. YouTube