

# Apps Analysis Solution

Cellebrite Diagnostics Identifies Problems Caused by Downloaded Apps and Offers Resolutions to Restore Optimum Phone Performance.

**1 OF 6**

CELLEBRITE  
DIAGNOSTIC  
SESSIONS



**IDENTIFY APPS THAT  
COMPROMISE PHONE PERFORMANCE**



## In a Nutshell...

With millions of apps available, and each needing different device configurations, permissions and storage, identifying problems can be challenging if testing and correction solutions are not in place.

To effectively deal with the many phone problems created by apps, retailers and mobile operators must be equipped to correctly identify, educate, and correct app-related problems the first time to increase customer satisfaction and save costs.



## Introduction

Half of the world's 7.21 billion people are mobile phone users.<sup>1</sup> Over 2 billion of those devices are smartphones.<sup>2</sup> And, with over 1.3 million apps available from Google Play and 1.4 million apps from Apple's App store<sup>3</sup>, it comes as no surprise that 88%<sup>4</sup> of time on mobiles is spent accessing mobile apps.

Additional statistics revealed that the average global smart phone user downloads an average of 26 apps<sup>3</sup> often from known sources, but also from less popular and less regulated markets. Regardless of which source is used, it is clear that not all apps are created equally. Some apps use up considerable amounts of memory and phone resources which lessen the phone's performance. This can be especially true for apps that become unstable or for which the phone's owner granted an inordinate amount of special permissions without considering what impact that might have. Unfortunately, there is no way for smart phone users to predict the myriad of potential problems these apps can cause, or that they can become a constant source of mobile-related complaints.

To protect revenue, and maintain the best possible customer experience, mobile operators and retailers need a comprehensive diagnostics solution that can quickly and accurately identify app-related problems the first time, and eliminate any further risk.

### Common Complaints

Most users are not familiar with the adverse effects that some apps can have on their device. Negative impact includes slower performance, faster battery drain and, sometimes, compromised data privacy. Disappointed, and unaware that the problem is caused by a downloaded app, mobile users head straight to their mobile retailer where, all too often, the representatives that receive their complaints are ill-equipped to identify an app as the culprit.

Once at the store, disgruntled users demand the problem be resolved and the phone restored to its full potential. This can prove difficult for the retailer if they do not have the solutions at hand to effectively diagnose the problem. This takes time and can anger the customer or create resentment towards the retailer or mobile operator if their representative cannot resolve the problem.

1. <http://wearesocial.net/blog/2015/01/digital-social-mobile-worldwide-2015/>

2. <http://www.telegraph.co.uk/technology/mobile-phones/11287659/Quarter-of-the-world-will-be-using-smartphones-in-2016.html>

3. <http://blog.appfigures.com/app-stores-growth-accelerates-in-2014/>

4. <http://techcrunch.com/2014/08/21/majority-of-digital-media-consumption-now-takes-place-in-mobile-apps/>

## Ineffective Tools and Processes

Manual troubleshooting ties up store representatives, usually with unsatisfactory results. Varying technical abilities among store personnel create uneven service experiences while even the most capable representative is limited by the few on-device OEM tests that provide little detailed, actionable information.

Performing a master reset or flashing the phone often results in only a temporary fix. Unaware of which app was causing the problem and why it should be removed, many customers later reinstall the offending app – and the problem returns. Through lack of an effective solution, operators and retailers simply treat the symptom and cannot identify the real source of the problem, which in many cases, is not limited to only one app.

For a solution to be effective, it must be able to test all apps on the phone, for all possible scenarios within which they could create the performance problem generating the customer's complaint. Once the problem is identified, the customer must be educated to ensure they don't inadvertently recreate the problem after it is resolved.

## The Solution

Cellebrite diagnostics performs a unique, detailed and reliable analysis of all apps installed on the device. The solution extracts a list of apps and services, as well as different device log information. These logs are analyzed to find patterns of app behavior that may affect phone performance, including apps that crash and restart constantly, leading to a misuse of phone resources, performance and battery issues. Diagnostics can also detect apps that are closed, and although not in use, continue to run in the background, and consume resources.

Part of Cellebrite's apps diagnostics includes malware detection to identify malicious apps and apps that illegally access personal information on the phone. Through Cellebrite's partnership with Webroot, a global leader in cloud-based security intelligence, diagnostics is able to access Webroot's database of over 9 million applications that are known to contain malware. The database also includes suspicious apps whose behavior, permission requests, or use of questionable ad servers raise suspicions about their safety.



After problematic apps have been identified, the customer is notified and given the option of whether to remove the app, or keep it installed – either way the customer is aware of the cause of reduced phone performance, eliminating frustration and future repair bookings.

Depending on the customer complaint and the diagnostics flow chosen at implementation, Cellebrite Diagnostics can run hundreds of tests including:

- Examination of crash logs to determine the stability of all downloaded apps
- Analysis of downloaded apps and system services and how they drain
- OS critical failures caused by apps or service



# Cellebrite's Multichannel Diagnostics

Cellebrite's apps diagnostics employs deep analysis to identify, correct and solve app-related issues.

Operators and retailers can empower their customers with the multichannel solution - available on-device, as a self-service app, in-store, online, or with remote assistance from a customer care representative.



Apps analysis is just one of hundreds of available Cellebrite Diagnostics tests operators may choose to get to the root of customer complaints and solve phone problems quickly and accurately. Cellebrite Diagnostics:

- Finds and corrects problems faster and closer to the source
- Eliminates unnecessary cost and effort for the customer and the operator/retailer
- Yields more first time resolutions
- Boosts customer satisfaction and trust
- Detects and corrects phone problems 24x7x365, anywhere your customer happens to be

## About Cellebrite

Cellebrite is a world leader in providing Operators, Retailers and Aftermarket Service (AMS) Providers, with advanced mobile lifecycle solutions to enhance the customer experience, improve satisfaction, reduce cost, and generate revenue. With delivery channels in-store, on-device, and over the web, mobile retailers can take advantage of Cellebrite's full suite of mobile lifecycle solutions: diagnostics, phone-to-phone content transfer, backup, restore and wipe, automated phone buyback, and application and content delivery. In addition, Cellebrite offers retailers monitoring, statistics and analysis of all activities. Cellebrite's global leadership is demonstrated through its deployment of over 150,000 units at more than 200 mobile operators and retailers globally, representing well over 100,000 stores and handling hundreds of millions of transactions per year.

Founded in 1999, Cellebrite is a subsidiary of the Sun Corporation, a publicly traded Japanese company (6736/JQ).

[www.cellebrite.com](http://www.cellebrite.com)

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