FREE ANDROID APPS RUNNING ADS ARE BATTERY DRAINERS

Research carried out by Purdue University and Microsoft found that free apps you may use could account for up to 75 percent of app-related battery drain on Android smartphones. The team tested five popular Android applications - Angry Birds, Free Chess, the Android browser, MapQuest and the New York Times app, using a specially-developed energy profiling tool called EProf. The frequent run-down on smartphone batteries may be attributed to that free serving ads and collecting data inside an app results in excessive use of the hardware components inside the appliance. Apparently, parts of free apps will turn on components like the 3G chip or GPS and cause them to stay on well after an information transaction has been completed, resulting in unnecessary power loss. While playing a level of Angry Birds, 70 percent of the battery drain was as a result of the game uploading user data in the background, such as location information and the downloading and displaying of ads to the user. Free Chess also showed similar energy-sapping behavior, this time ads alone accounting for 70 percent of the battery drain. This excessive battery consumption is probably down to poorly-coded ad modules, and the hope is that more information will allow developers and advertisers to write more efficient code. Ads are not the only culprit; Both the Android browser and the New York Times app consumed around 15 percent of battery power on user tracking alone. It was also discovered that bugs in apps such as Facebook's Android app also cause the battery to be drained more rapidly that necessary by not allowing the CPU to enter sleep mode even after the app has been terminated. Also, smartphone OSes include "wakelock APIs," which allow apps to prevent different pieces of hardware from sleeping, such as an app that wakes the CPU to check for new messages or a video application that stops the screen from sleeping while playing a movie. Items like the camera and GPS presented a similar problem with researchers finding that apps that use these devices start them up and put them in a high power-consuming state without turning off until explicitly done so by another service. Numerous apps, including Angry Birds. Free Chess, the New York Times and MapQuest got blacklisted in the report. While the complete report is quite in-depth, as an app developer, or if you develop ad modules for apps, it may be worth taking the time to have a read through it. It could very well help your app consume less of your user's battery life. One simple lesson here is that if you find yourself drinking your battery dry by 7pm every day, springing for the paid versions of apps that don't need to use extra energy to serve you ads could help. The team plans to make the EProf tool under an open-source license shortly.