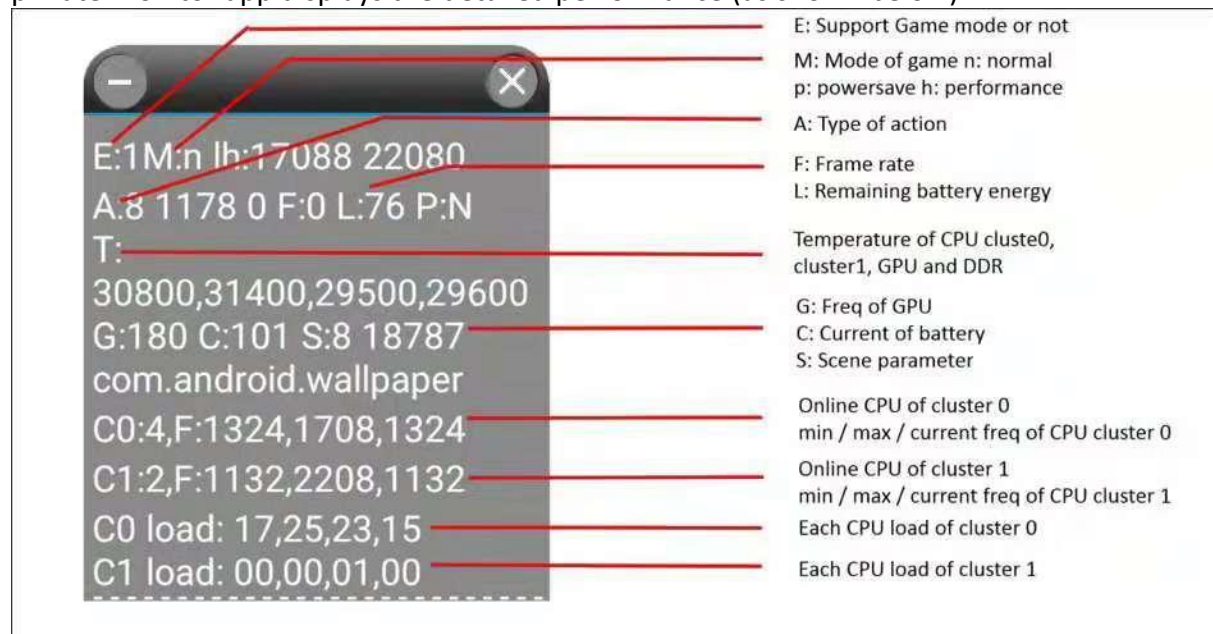


OPPO's Response to UL's 3DMark Delisting

On October 18, UL published a press release on its website detailing its decision to discontinue benchmarking OPPO Find X and OPPO F7. OPPO appreciates UL Benchmark's consideration in its benchmark tests and values its handset performance test results. We also respect the principles and standards upheld by UL Benchmark in the performance tests.

We are transparent with the fact our software system optimization strategy includes application software package name detection (hereafter referred to as package name detection). However, the package name detection is only one aspect of our multi-dimensional system optimization strategy. In addition this, the strategy simultaneously detects the frame rate, touch operation, file read/write operation, sound play, network usage, real-time power consumption and temperature, and real-time CPU/GPU load. A private Monitor app displays the detailed performance (as shown below):



Smartphones are widely known as heavily-used mobile devices that, in addition to meeting basic user demands, are also often used for complex and highly different applications. As a leading smartphone producer, OPPO takes into account the requirements of all aspect, such as performance, audio/video effect, network connection speed, battery life, and heat. To bring a better experience to users, OPPO formulated different performance/power balance strategies for common scenarios and mainstream application software. Since Android does not offer such system resource scheduling strategy, it's a common challenge for all phone brands to lower system power consumption and extend battery life while maintaining the smooth operation for frequently-used applications. To avoid unknown third-party applications maliciously consuming system resources, which may cause overheat of the phone and a significant drop in battery life, OPPO rejects unreasonable system resource requests of this kind to control the system power consumption and handset heat-up within an appropriate range.

To reflect the true performance of the handset, OPPO prioritizes benchmark utilities in terms of package name detection. This despite certain applications that may not have a high

FPS (frames per second) or frequent screen touches typically seen in game playing. In this scenario, full resources will still be allocated to them, so as to demonstrate a close approximation of the real-world gaming performance. In fact, similarly-configured handsets powered by Snapdragon 845 platform see little difference in their performance test results. The screen frame rate in the 3DMark private version is relatively lower (less than 25 with no screen operation) so the system performance will be limited due to power consumption and battery life considerations, leading to a significant drop in performance score.



Removing package name detection and allocating system resources solely on application requests could remove score differences from different benchmark testing versions, but it may risk shortening battery life due to increasing and excessive resource requests from unknown malicious software. This presents a difficult choice but one that must be made. Previously we adopted a benchmark software detection strategy to allow for full-speed system operation and power optimization strategy for other unknown applications.

We've always believed in the importance of a smooth experience with respect to gaming and other applications. Over the past year, we've been working closely with well-known game developers such as Tencent and have greatly improved our performance with the most popular games. Targeted improvements were made to gaming scenes, game mode and others, allowing real-time dynamic resource allocation upon request and timely resource release, turning off redundant system kernel, lowering frequency, and extending battery life. Tailored optimization at this level can only be realized through close joint development and testing between the handset producer and the game developer.

Android is an open ecosystem, and a typical user may install ten's of applications. We hope to maximize the optimization of the most frequently-used applications while delivering optimal and sustainable performance. It's clear that this strategy is made based on multiple considerations which may affect user experience rather than focusing on achieving a higher benchmark score.

From today, we have decided to cancel the package name detection for benchmark utilities. System resources will be allocated solely based on application request. In the future we will also grant user's access to the Performance Mode. Achieving high benchmark scores is not our target, and we don't use benchmark scores to promote our products.

We sincerely appreciate the support from UL Benchmark and friends from in the media with respect to benchmarking. Ultimately, together we believe we can deliver a better experience to users.

OPPO Mobile
24th Oct, 2018