



Founded in 2012, the Developers Alliance is a global advocate for software developers and the companies that depend on them.

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## Developers Alliance's Comments on the CMA's Statement of Issues on Mobile Browsers and Cloud Gaming Market Investigation

Developers Alliance welcomes the opportunity to provide comments on the Statement of issues on mobile browsers and cloud gaming market investigation.

As a general remark, fewer restrictions for web application development and cloud gaming could bring more opportunities for developers and enhance competition in the gaming market. At the same time, there are consequential ramifications from the technical decisions that define what functionality occurs at the various layers of the technology stack that makes up a modern smartphone or tablet. The synergy between OS, browser engine, and browser often reflects other architectural and performance decisions that impact the device as a system. The CMA must exercise extreme caution not to frame decisions driven by technical realities as being driven instead by economics. We acknowledge this is a very challenging task that requires expertise in both domains.

Given the mixed technical and economic assessment required, we are naturally wary about the proposed level of intervention. The perspective of the new regulatory regime for digital markets seems more suitable, especially on certain aspects in relation to choice architecture.

Moreover, the hypotheses to be tested appraises complex mobile ecosystems already engaged in obvious competition. The intervention should recognize the advantage for competition and consumer choice of ecosystems based on different business models and levels of openness. In addition, treating the legacy device market as closed to new entrants or disruption will result in short-sighted and potentially destructive decision making - particularly when the impetus for intervention is cloud gaming, which is itself undergoing explosive growth that is obviously disrupting the ecosystems around it already.

It is easy to understand that developers' views are mixed, often depending on where in the various ecosystems they focus their efforts and also often reflecting their immediate commercial interest. As mentioned in our feedback to the interim report on the Mobile

Ecosystems Market Study<sup>1</sup>, we are obliged to take a paradoxical stance, to keep a pragmatic perspective, and avoid narrow objectives in championing our diverse member's interests. Thus, while recognizing the benefits of certain changes for developers, we take a practical view of the outcome of some of the proposed remedies. Certain remedies should be contemplated carefully in respect to security, privacy, and the ability of ecosystem owners to make independent architectural and engineering decisions.

## *1. On hypotheses or theories of harm*

### *1.1. Indirect network effects and unilateral market power*

As mentioned above, there's little acknowledgment of the competitive interplay between Google and Apple, or of the symbiotic competition of traditional game developers and web gaming companies. One could certainly argue that the very existence of the web gaming market demonstrates a dynamic and innovation driven ecosystem for consumer gaming - something to celebrate rather than regulate. Furthermore, the analysis should take into consideration the history and evolution of the two (very different) mobile ecosystems and the concerned markets, perhaps including an assessment of related gaming ecosystems, how consumers view the gaming market, and the market for game development generally. This would be useful in better understanding the current state of affairs and a more appropriate approach to address certain issues.

The specificities of each of the two ecosystems, in terms of openness and vertical integration, monetization, organization and business model more precisely, allow an important differentiation, even in the context of a market concentration. Developers acknowledge and take full advantage of this differentiation. We would note that engineering details such as which browser engine is in play are likely far below a consumer's notice. Gamers are more likely to key on game performance and features such as latency which will likely always be a differentiator between native and browser-based gaming.

Notwithstanding the importance of indirect network effects, it is essential to understand the market's evolution and reasons for the limited uptake of browsers. In this respect, while the Android open ecosystem provides a fertile ground for browser diversity, it is self-evident that the limited demand for alternative browsers is driven by developers' need for facile, effective

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<sup>1</sup> [https://assets.publishing.service.gov.uk/media/6229aba98fa8f526cf29aa2e/Developers\\_Alliance.pdf](https://assets.publishing.service.gov.uk/media/6229aba98fa8f526cf29aa2e/Developers_Alliance.pdf)

*"We come to the ironic conclusion that we cannot support the CMA's narrow developer objective even though it is couched in developer self-interest because it ignores the health of the ecosystem, its critical role in market creation and stewardship, and its role in connecting consumers to market participants."*

(including cost-effective) development processes. The CMA must take into account that there may simply be no demand for additional browsers where the market value comes from elsewhere in the software stack. The focus must be on barriers to entry, not on engineering additional competition where the market has determined none are needed. That outcome would actually divert resources from some other viable market and create net economic harm.

Browser engines are intrinsically linked to device security and overall OS functionality. Therefore, certain restrictions should be carefully assessed from this perspective. Developers of web and progressive apps obviously are interested in wide access to functionalities and feature support. At the same time, the same developers rely to a great extent on ecosystem managers to ensure the high level of safety, security, and performance that users expect. This is relevant for both ecosystems being assessed, as well as for the other gaming ecosystems that compete with them for consumers.

### *1.2. The WebKit requirement on iOS*

As mentioned in the introductory part, web developers would clearly appreciate fewer browser restrictions and increased functionality. There are clear limitations for web apps in an integrated environment, especially in connection to the operating system (e.g., dependency on iOS updates) and connectivity constraints such as latency. At the same time, the responsibility for security and privacy risks rests on the ecosystem's manager, which is also accountable for ensuring proper standards and conditions for improving web development. Users' expectations from a certain ecosystem, based on their choice, is an important aspect for the analysis. Browser implementation is one of the differentiators gamers and developers can assess when choosing whose phone or tablet to support.

### *1.3. Restrictions on browser functionality*

Concerning restrictions on functionalities in WebKit, the comments above are relevant. It is unclear if feature access for third-party browsers in Android raises concerns deemed for an investigation.

Functionality driven by economic decisions must be carefully parsed alongside functional decisions whose roots lie in engineering and software decisions.

#### *1.4. Restrictions on in-app browsers*

Developers prefer a smooth experience and choose the tools and platforms that support their work in the most efficient way. Developers make constant tradeoffs between developing functions inside their own software or accessing features from third parties outside their own code. It is important to note that the level of specialization across web app developers varies, like in any other area. Some developers will prefer to offload functions that are seen as outside their specialty or non-critical to their application. Others will prefer to implement their own proprietary solution for either technical or commercial reasons. What they value is the flexibility to make those decisions.

#### *1.5. Choice architecture*

The investigation should take into consideration the remedies implemented following the Google Android decision of the European Commission of 18 July 2018, as well as the EU General Court's judgment in the Case T-604/18 before the General Court (under appeal)<sup>2</sup>. Creating additional or competing obligations simply fragments the ecosystem and makes it less and less profitable for developers to build for UK consumers.

In general, choice architectures provide only the illusion of choice for new entrants, since there is simply no neutral mechanism to give them equal billing with incumbents and known brands. Choice screens freeze the current competitive landscape and lock in existing players. Choice screens prevent disruption and simply distort markets to reflect the regulator's desired goals. That said, allowing ecosystem owners to annex attractive application markets by subsuming them into the OS or embedding them as defaults is equally unacceptable. We encourage the CMA to further wide-ranging discussion in this area in the hopes of finding a creative outcome that benefits everyone without creating unwelcome (and unhelpful) fragmentation.

#### *1.6. Revenue sharing agreements*

We forgo comments on these aspects, as these are not relevant for developers.

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<sup>2</sup> Developers Alliance is one of the interveners in this case.

### *1.7. Theory of harm in relation to the distribution of cloud gaming*

Many game developers that see cloud gaming as a great opportunity are sensitive to limitations in the distribution of their products. The investigation could provide a deeper understanding of whether certain restrictions are justified and proportionate in both economic and engineering terms. Whatever the case, cloud gaming should be as free from limitations as native apps, where engineering allows, to the benefit of developers and users alike. Again, we encourage the CMA to assess cloud gaming in the context of gaming on these devices generally, as obviously the native game app market is directly impacted by decisions that promote cloud gaming.

## *2. On remedies*

### *2.1. Removing Apple's restrictions on competing browser engines on iOS devices*

We commend the CMA's attention to the impact of the proposed changes on consumers "in terms of the performance of mobile browsers on iOS, in particular relating to measures around security." It is clear that developers and consumers view iOS devices and Android devices as differentiated alternatives offering broadly similar capabilities under different product and ecosystem philosophies. Any intervention which reduces differentiation between ecosystems must have its anti-competitive impact justified.

Restrictions based on technical, or security concerns must always be weighed against purely economic restrictions, and be based on data and analysis.

### *2.2. Requiring Apple and Google to provide greater access to functionality for rival browsers*

Similarly, the remedies regarding functionality access should indeed observe security implications. Technically justifiable and reasonable limitations in this sense should be allowed, for the sake of the stability of the ecosystems. Rival browser access should provide openings for new entrants and disruption.

We reiterate that developers will differentiate their offer based on the efficiency and functionality of any embedded features (balanced against their own business goals and technical objectives).

### *2.3. Requirements that make it more straightforward for users to change the default browser within their device settings. Choice screens to overcome the distortive effects of pre-installation*

Implementation of choice architecture represents a complex exercise and remains ineffective for new entrants. Such remedies require an iterative approach in order to identify the optimal solution, given the range of trade-offs. Also, they need to be flexible, to adapt with the evolution of the products and markets but also in a continuous dialogue with the companies involved, as well as with relevant third-party stakeholders.

These issues are more suited to be addressed by the Digital Markets Unit (DMU) in the perspective of the new digital regulatory regime. Moreover, the implementation of related obligations imposed by the Digital Markets Act will inform CMA's actions. The UK could identify better remedies, as not being constrained by a rigid approach like that imposed by the DMA.

In any case, choice screens architecture should allow market entry and genuine consumer choice, which so far they fail to do.

### *2.4. Requirements to enable users to choose their default browser for in-app browsing. Requirement for apps to respect the user's default browser choice for in-app browsing*

The comments above on choice architecture apply, as does the general concern that purely functional and engineering-based architectural decisions should not be overridden absent clearer evidence of anticompetitive intent.

Where in-app browser implementation is done for anti-competitive reasons, it is suspect. When it is a technical decision based on performance and competitive differentiation, it should be completely appropriate. Just as no single app preempts the addition of other apps in the same category, multiple browser implementations should be allowed. Mandating either approach could result in poorer app performance and consumer disappointment, or alternatively, the inefficient duplication of a function best implemented once for all apps to share.

## *2.5. Remedies related to Revenue Sharing Agreements*

We forgo comments on these aspects, as this is not relevant from developers' perspective.

## *2.6. Requiring Apple to remove its App Store restrictions on cloud gaming services*

As previously mentioned, finding solutions to minimize the frictions in distributing cloud games will only benefit game developers and consumers alike. At the same time, regulators, consumers, and developers alike recognize the critical role that app stores play in regulating the ecosystem and safeguarding participants. In some cases, this function is now mandated, making single-market remediation in this area a disincentive to participate in non-standard markets. To the extent restrictions are for purely anti-competitive reasons, they should be prohibited.

Developers would greatly benefit from improvements of the approval and rejection process in all app stores, particularly more transparency and consistency, as well as clear guidelines. Prompting users about the availability of games in the form of web apps would increase the discoverability of cloud gaming services and allow user choice. In addition, enabling distribution of web apps in general through the ecosystem app store is worth promoting.

With regard to sideloading and enabling installation of alternative app stores on iOS, we anticipate there will be much to learn by observing the implementation process of the relevant obligations of the EU DMA.

## *2.7. General comments*

The investigation should carefully assess the cumulative effect of the proposed remedies on a single ecosystem, and on the competition between the two targeted ecosystems and gaming ecosystems generally. A significant degradation in the level of privacy and security would have unintended negative effects for both developers and users, as the attractiveness of the ecosystem will decline. As for stimulating competition across ecosystems, reducing ecosystem differentiation will have an adverse effect on competition. Possible incentives for new ecosystems to emerge should be studied instead. It is not a lack of capital or ability that prevents new entrants in mobile, but rather no attractive market opportunity. Regulatory management of the disruption that is clearly underway in gaming seems ill-conceived at this time; the market is far from stagnant. Many of the observations the study makes are indicative of a market undergoing significant disruption and trying to compete through evolution.

Addressing security, privacy, and technical concerns when establishing the optimal remedies is an important aspect. We suggest consistency with the recent [Code of Practice for App Store Operators and App Developers](#), which sets out the minimum security and privacy requirements that should be followed by app store operators and app developers, and which we are supportive of.

With regard to “the effectiveness of the potential remedies if they apply only to the UK”, the developments in other jurisdictions are highly relevant, particularly the upcoming changes for compliance with the EU DMA. It is obvious that from developers’ perspective, consistency across jurisdictions is desirable, in order to avoid the fragmentation of ecosystems and higher cost for development. Another aspect that needs to be considered relates to the possibility of abandonment of (relatively) small geographic markets that demand a separate approach for the development of an application, at an unsustainable cost.

We feel compelled to remind the CMA that we will strongly contest extra-territorial remedies. The internet is a global market, and there are no technical means to retain its global nature while locking regulation to geographic boundaries. Our preference is regulatory harmony across markets. Local regulations risk reducing the incentives and raising the costs of local consumers as scales shrink and penalties multiply.