

Competition and Markets Authority

The Cabot
25 Cabot Square
London
E14 4QZ

For the attention of:

browsersandcloud@cma.gov.uk

By email only


30th July 2024

Dear Sirs,

Re: Mobile browsers and cloud gaming – Working Paper 6 - Comment

1. As you know, we represent Movement for an Open Web (“MOW”). We are writing further to our submissions made regarding our comments on Working Papers 1, 2, and 3, which should be read in conjunction with this letter. We make five key points in relation to WP6.
 - (a) Firstly, we note that network latency is a factor in cloud gaming and even small delays inside data centres are capable of causing significant performance degradation.
 - (b) Secondly, we provide our view, which is recognized by the Digital Markets Act 2022 (DMA), telecommunications regulation and supported by the CMA’s market definition in the Microsoft/Activision Blizzard merger enquiry, that greater weight should be given to the supply side factors in defining markets such as cloud computing.
 - (c) Thirdly, we note that the application program’s operation performance is not dependent on the significance or sophistication of the processing in the edge devices (iPhone or iPad), which is supported by the statements of the US Department of Justice in *USA v Apple* [2024].
 - (d) Fourthly, we set out that if the anticompetitive restrictions imposed by Apple on cloud streaming apps were removed, the UK customer would benefit from the increased competition, both in terms of more choice at lower prices for games but also in terms of lower prices for Apple’s iPhones and iPads.
 - (e) Finally, we invite the CMA to enhance the scope of its enquiry to include the assessment of the impact on consumer prices.

Cloud gaming

2. The issues statement for the market investigation (MI) sets out that this investigation is considering whether ‘*Apple’s App Store policies effectively ban cloud gaming services from the App Store and whether this weakens competition in the distribution of cloud gaming*’, and whether similar restrictions limit competition across other cloud gaming platforms such as Google’s.

3. Cloud gaming, like all uses of cloud computing, is dependent on the features and functions of computing systems in data centres. One of the most important factors is latency. In a well-regarded and long-standing explanation, the way latency works was explained by Stuart Cheshire many years ago. We commend that explanation to the CMA as an introduction.¹ We also recognize that network latency² is still a factor for typical cloud computing use cases such as streaming, analytics applications, real-time auctions that are used for advertising, online betting, and multiplayer games. Even small network delays inside data centres may lead to a significant performance degradation.³

Gaming apps and Open Web gaming

4. Cloud gaming has recently emerged as a revolutionary technology that offers gamers the ability to play high quality games from cloud centres without downloading the game and buying expensive hardware.⁴ This low-price offering has attracted a lot of consumer attention⁵, which is only likely to increase⁶. Our understanding supports the CMA findings in WP6 2.23

Market Definition

5. Cloud gaming was at the centre of the CMA's concerns in the Microsoft/Activision Blizzard transaction.⁷ In that case, emphasis was placed on the need to consider the supply side and the *dynamic nature* of competition over time. The CMA's Microsoft /Activision Blizzard decision referred to the "dynamic" nature of competition market and elements 39 times whereas "dynamic" competition is referred to only twice in WP6, once in WP1, zero times in WP2, 3, 4, and only once in WP5.
6. In response to WP1 and WP2, we have made comments about the market definition and the need to focus on supply side factors in platform markets. We welcome the statements made in WP6 para 3.3 and 3.4.
7. Particularly, we would emphasize that supply side factors are paramount in high fixed cost high network externality businesses with increasing returns to scale and scope, where efficiency in marginal production leads to monopoly provision. This is recognized in the DMA and in telecommunications regulation as the starting point and rationale for the need to impose regulation
8. Cloud computing is a method of computing, which takes advantage of the underlying performance telecommunications which have improved considerably in recent times, enabling improved latency and lower costs. Higher bandwidth provision together with other improvements in caching and equipment, provide the ability of low price gaming with an acceptable quality of service and quality of experience for the gamer. Building on the

¹ <http://www.stuartcheshire.org/rants/Latency.html>

² <https://aws.amazon.com/what-is/latency/>

³ <https://www.cl.cam.ac.uk/techreports/UCAM-CL-TR-914.pdf>

⁴ <https://atechsland.com/why-is-cloud-gaming-so-laggy/>

⁵ <https://www.maketecheasier.com/cloud-gaming-vs-gaming-pc/>

⁶ <https://www.statista.com/outlook/dmo/digital-media/video-games/cloud-gaming/worldwide> and see

<https://www.grandviewresearch.com/industry-analysis/cloud-gaming-market>

⁷ CMA (2023), Anticipated acquisition by Microsoft of Activision Blizzard, Inc. Final report, paragraphs 5.82–5.97.

underlying telecommunication infrastructure in the UK, suppliers can create efficient computing in data centres that meets growing demand for such low latency services in the UK.

9. In the Microsoft/Activision Blizzard case, the CMA's assessment of the supply side accords with our view of how technology markets should be approached. We fear that a risk of inconsistency of approach may be exploited by those being investigated if a similar approach is not taken in this case.
10. In Microsoft/Activision Blizzard, when looking at the geographic market, the CMA found that the appropriate market was 'the market for cloud gaming services in the UK'. One major factor in the assessment was that **"To provide a low latency gaming experience, CGSPs must have servers located in a data centre close to the customer. This creates a barrier to geographic expansion as a CGSP must first invest in or gain access to national or regional data centres before expanding their service to a new location."**
11. We would emphasise the importance of investment on the supply side (in the cloud data centre in the UK together with relevant software, intellectual property rights, etc.), which determines the ability of a business to provide cloud gaming services in the UK. We have suggested that markets such as cloud gaming are and should be more often defined by giving greater weight to the supply side factors and that the CMA's approach to market definition as identified in relation to cloud computing in Microsoft /Activision Blizzard should be supported.

Restrictions on cross platform cloud gaming and the impact on both cloud gaming and device prices (consistency with USA v Apple [2024])

12. However, the processing in the edge devices (iPhone or iPad) does not need to be significant or sophisticated for the application program to operate well. As has been stated by the US Department of Justice in its recent filing in *USA v Apple* [2024]:

Para 4 states: *"Apple's conduct also stifles new paradigms that threaten Apple's smartphone dominance, including the cloud, which could make it easier for users to enjoy high-end functionality on a lower priced smartphone-or make users device-agnostic altogether. As one Apple manager recently observed, "Imagine buying a [expletive] Android for 25 bux at a garage sale and it works fineAnd you have a solid cloud computing device. Imagine how many cases like that there are." Simply put, Apple feared the disintermediation of its iPhone platform and undertook a course of conduct that locked in users and developers while protecting its profits."*

and

Para 9 states: *"These examples below individually and collectively have contributed to Apple's ability to secure, grow, and maintain its smartphone monopoly by increasing switching costs for users, which leads to higher prices and less innovation for users and developers. Apple has used one or both mechanisms (control of app distribution or control of APIs) to suppress the following technologies, among others:*

• [...]

- *Cloud streaming game apps provide users with a way to play computing intensive games in the cloud. Cloud streaming games (and cloud streaming in general) can improve smartphone competition by decreasing the importance of expensive hardware for accomplishing high compute tasks on a smartphone. Suppressing cloud streaming games harms users by denying them the ability to play high-compute games, and it harms developers by preventing them from selling such games to users.”*

Para 57 states : *“Apple slowed its own iPhone innovation and extracted more revenue and profit from its existing customers through subscriptions, advertising, and cloud services. These services increase the cost of switching from the iPhone to another smartphone because many of these services-including its proprietary gaming, cloud storage, and news service-are exclusive to the Apple ecosystem, causing significant frictions for iPhone users who try to use alternative services on another smartphone. ...”*

See further paras 71 et seq.: ***“Cloud Streaming Apps: Apple prevented developers from offering cloud gaming apps that reduce dependence on the iPhone's expensive hardware.”***

“.. 75. Apple wielded its power over app distribution to effectively prevent third-party developers from offering cloud gaming subscription services as a native app on the iPhone. Even today, none are currently available on the iPhone..”

and

“79. Cloud streaming apps broadly speaking-not just gaming-could force Apple to compete more vigorously against rivals. As one Apple manager recognized, cloud streaming eliminates "a big reason for high-performance local compute" and thus eliminates one of the iPhone's advantages over other smartphones because then "all that matters is who has the cheapest hardware." Accordingly, it reduces the need for users to buy expensive phones with advanced hardware. This problem does not "stop at high-end gaming," but applies to "a number of high-compute requirement applications.”

and

“120.. Apple has limited the capabilities of third-party iOS web browsers, including by requiring that they use Apple's browser engine, WebKit. Protocols that Apple has placed around new "eSIM" technology may introduce additional frictions for any user who seeks to transition from an iPhone to a different phone while maintaining the same phone number. Apple has impeded cross-platform cloud storage apps in order to steer iPhone users into iCloud, making data transfer between different devices more difficult.”

and

“146. Finally, Apple selectively enforces its rules and contractual restrictions for app distribution and app creation. For example, when it benefits Apple to do so, Apple permits developers to introduce mini programs, stream content from the cloud, use virtual currency, and receive special permissions or access APIs not automatically available to everyone.”

13. The above comments from the USA mirror the concerns set out in Section 3 of WP6 that the CMA has identified save that the consumer harm in the CMA's case is understated. If the anticompetitive restrictions that Apple imposes on cloud streaming apps were removed, increased competition in the provision of offerings would benefit the UK consumer, both in terms of more choice at lower prices for games but also in terms of lower prices for Apple's expensive iPhones and iPads.
14. We support both the CMA and DOJ analyses, which are inherently consistent in terms of assessing the relevant constraints on competition, although they highlight a difference in approach toward relevant market definition with the CMA's previous Microsoft/Activision Blizzard findings concerning cloud gaming and that the markets affected in the *USA v Apple* include end user devices
15. We appreciate that the scope of the CMA enquiry may be a challenge to alter at this stage in the MI, but it would be open, and in the interests of international comity, for the CMA to acknowledge and adopt the assessment made by the Department of Justice with relation to the ***impact on consumers from the imposition of restrictions, which are already issues identified by the CMA.***
16. Apple would suffer no prejudice in being able to respond to an enhanced or broader assessment of the harm to consumers if the CMA were to expand its assessment to include the impact on the prices that consumers pay for devices in the UK. Apple is already facing, in the antitrust case in the US that is concerned with effectively the same restrictions on competition that it is facing in the UK and documents could be available to the CMA from Apple that have already been disclosed in the US proceedings. The same issue is less relevant to the restrictions placed by Google on cloud gaming.

Relationship between Google and Apple, and the role of IP addresses

17. In our previous submissions on the CMA's other working papers in this case, we emphasise the revenue sharing agreement between Google and Apple, which has an impact on each of their incentives and further drives their anticompetitive conduct. This should also be looked at in the context of cloud computing, especially since it has been reported that Apple has significantly increased its use of Google's cloud services.⁸ The 36% revenue sharing agreement between Apple and Google is a significant driver of profit (\$20 bn per annum). This profit is generated through Google having exclusive access to iOS users' data. With Apple's use of Google data centres, Google is consolidating its payment to Apple, which further diminishes the two browser owners from competing against each other.
18. Coordination is already taking place between Apple and Google with relation to cloud computing. In 2018, Apple was reported to partner with Google for its data centres.⁹ Using US data, almost 50% of Google's search traffic comes from Apple.¹⁰ *USA v Google* estimates that Apple users' mobile data are 60% of US mobile data search usage.¹¹ It is also suggested by the DOJ that mobile device search usage is the fastest growing search distribution channel. There

⁸ <https://appleinsider.com/articles/21/06/29/apple-is-now-googles-largest-corporate-customer-for-cloud-storage>

⁹ <https://www.lightreading.com/it-infrastructure/apple-partners-with-google-steve-jobs-spins-in-grave>

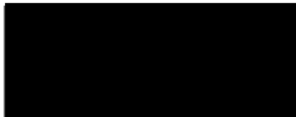
¹⁰ *USA v Google* para 121.

¹¹ *USA v Google* para 43.

is no reason to believe this position is materially different in the UK or EU, but we recognise that Android devices achieve greater levels of market penetration in less developed economies.

19. Also, via Google's introduction of IP Protection (one of its Privacy Sandbox Technologies) earlier this year, Google is intending to anonymise users' IP addresses by proposing "a two-hop privacy proxy that anonymises qualifying traffic"¹². Google is positioning itself in an IP rerouting role and traffic exchange that benefits their data centre connectivity. It can route Internet traffic over its proxy servers to flow through Google infrastructure and cloud computing products, increasing traffic volumes over its owned infrastructure. Being able to manipulate the transport of traffic allows it to use its traffic more efficiently and minimise latency, and become a better data centre solution for Apple to use in its supply of cloud gaming services.
20. More importantly, Google's justification of hiding IP Addresses from rival business-facing solution providers in the name of privacy holds no water, as it bundles its solution with its dominant Chrome browser and Android operating system, rather than merely offering its "Virtual Private Network (VPN)" on competitive terms with existing VPNs. Google should not be allowed to bundle its VPN service within its dominant software. Furthermore, Google is still able to see IP Addresses via the anticompetitive first party exemption, which the ICO and CMA have rejected as a legitimate basis for interfering with rivals' use of data.¹³
21. We hope the above is helpful to the CMA and remain available should the CMA have any questions.

Yours faithfully,



Preiskel & Co LLP

¹² <https://developers.google.com/privacy-sandbox/protections/ip-protection#:~:text=proposes%20a%20two%2Dhop%20privacy%20proxy%20that%20anonymizes%20qualifying%20traffic>

¹³ <https://ico.org.uk/media/about-the-ico/documents/4019050/opinion-on-data-protection-and-privacy-expectations-for-online-advertising-proposals.pdf>; see section 4.1