

Microsoft's response to the CMA's consultation on the proposed market investigations into mobile browsers and cloud gaming

1 Introduction

- 1.1 Microsoft agrees with the CMA's findings in the Mobile Ecosystems Final Report (**Final Report**), and commends the CMA for the thoroughness of its broad ranging market study. It also welcomes the CMA's proposal (that is the subject of the **Consultation**) to make a market investigation reference (**MIR**) in relation to mobile browsers and cloud gaming.
- 1.2 This paper sets out Microsoft's responses to the questions raised in the Consultation. In summary, Microsoft considers that:
- (a) A MIR is the most appropriate tool currently available to the CMA to address the competition and consumer issues relating to mobile browsers and cloud gaming that have been identified in the Final Report, and the most timely way to deliver crucial improvements for consumers in the necessarily short timeframe in which action needs to be taken to prevent further harm.
 - (b) Microsoft agrees with the non-exhaustive list of potential remedies relating to mobile browsers proposed in the Consultation, namely removing Apple's restrictions on competing browser engines on iOS devices, mandating access to certain functionality for browsers (including supporting web apps), requiring Apple and Google to provide equal access to functionality through APIs for rival browsers, requirements making it more straightforward for users to change the default browser in their device settings, and offering choice screens to overcome the distortive effects of pre-installation.
 - (c) Microsoft also agrees with the non-exhaustive list of potential remedies relating to the App Store proposed in the Consultation, including requiring Apple to remove its App Store restrictions on native cloud gaming apps. [CONFIDENTIAL].

2 Responses to consultation questions

Consultation Question 1: Do you consider that our analysis is correct with respect to the suspected features of concern in the supply of mobile browsers and cloud gaming in the UK?

- 2.1 Microsoft considers that the CMA's analysis is correct with respect to the features of concern in the supply of mobile browsers and cloud gaming in the UK, and that those features have adverse effects on competition and ultimately consumers.

Features of concern

- 2.2 With respect to the supply of mobile browsers and browser engines, Microsoft agrees with the CMA's concerns about Apple's and Google's conduct and certain features of the market, in particular: (i) Apple's mandated use of WebKit for browsers on iOS, (ii) the importance of network effects, (iii) the need to ensure web compatibility (to enable browser users to access web content), (iv) the impact on user behaviour of pre-installation, default setting and choice architecture, (v) constraints on the ability of alternative browsers to access certain hardware and operating functionality, (vi) the exclusionary effect of revenue sharing agreements.
- 2.3 Microsoft also agrees with the CMA's concerns relating to Apple's restrictions on the ability of cloud gaming providers to access the App Store. Indeed, Microsoft considers that Apple has used its control over native app distribution through the App Store to block the emergence of cloud gaming apps. As the CMA has rightly identified, Apple does so because cloud gaming offers an alternative

method of game discovery and distribution, such that it poses a threat to Apple's position in native app distribution and its related revenue streams.

- 2.4 Microsoft also shares the CMA's concerns relating to Apple's and Google's other conduct impacting on the supply of mobile browsers and cloud gaming in the UK. Microsoft agrees that Apple's and Google's control over their respective mobile ecosystems enables them to restrict competition in the development and distribution of apps and has wide-ranging implications (as set out in paras. 6.260-6.265 of the Final Report). For instance:
- (a) Apple's app review process for the App Store is inconsistent, and it often fails to clearly explain the reasons for rejections. This creates uncertainty, costs and delays for app developers in the short-term, hinders innovation in the longer term, and advantages Apple's own apps (which do not go through the same review process and do not comply with many of the conditions that Apple imposes on third party developers' apps). While Google's app approval process does not currently create the same issues, the fact that Google has the ability to adopt practices that are similar to Apple's [CONFIDENTIAL].
 - (a) As noted in the Final Report, the main way in which both Apple and Google monetise their app stores is through requirements on developers to use their proprietary payment processing systems (Apple's payment processing system and Google Play's billing systems) to process users' in-app purchases. Both Apple and Google charge a commission of up to 30% for such transactions. The majority of their revenues are generated in connection with mobile gaming, particularly one-off in-app features or content, such as items purchased within a game experience, rather than for ongoing subscriptions (as shown in Table 6.2 in the Final Report). [CONFIDENTIAL].

Adverse impact on competition

- 2.5 Microsoft agrees with the CMA's findings that Apple and Google have substantial market power in the supply of mobile browsers and, even more so, in browser engines. This results from their combined high shares (around 90% in mobile browsers and 97% in mobile browser engines) and the considerable barriers to entry. As the CMA has rightly identified, Apple and Google exercise limited competitive constraints on each other, and face limited constraints from third parties.
- 2.6 The CMA correctly identifies a number of characteristics of the current supply of mobile browsers and mobile browser engines which make it highly unlikely that effective competition to Apple and Google will emerge without the CMA's intervention.
- 2.7 Microsoft agrees that Apple's requirement that iOS browsers use WebKit is the key barrier to the development of competition in the supply of mobile browser engines on iOS – Apple effectively dictates the features that browsers can offer on iOS. Crucially, it severely constrains differentiation from Safari on features such as speed, privacy and security, and functionality, making successful third party entry and expansion less likely. In addition, the requirement that developers of mobile browsers for iOS use WebKit impairs the viability of web apps – WebKit does not fully support a number of key functionalities for web apps, including push notifications, full-screen functionality, and lock-screen rotation (as further set out in para 5.61 of the Final Report). As a result, the requirement to use WebKit impedes more widespread adoption of web apps. As further discussed below, this also has implications for cloud gaming, given that web apps are the only available way of distributing cloud gaming services on iOS devices today (as a result of Apple's restrictions on distribution of native cloud gaming apps through the App Store) – this means that third party developers of web apps (including cloud gaming apps) are compelled to offer lower-quality services.
- 2.8 Further, Microsoft agrees with the CMA that the security concerns raised by Apple to justify the WebKit restriction are overstated. Microsoft notes the findings by RET2, which indicate that the three main browser engines (Blink, Gecko and WebKit) are all very secure for the average user. As such, as long as a user is on the most updated version of the browser engine, the browser is rarely the source of security issues affecting consumers on mobile devices. Indeed, absent restrictions like the WebKit requirement imposed by Apple, privacy and security are parameters on

which browsers compete. In relation to this, the CMA should continue to closely scrutinise and test further justifications advanced by Apple that relate to privacy and security.

- 2.9 Although Google does not restrict the mobile browser engines that can be used in browsers on Android devices, the likelihood of successful entry and expansion in browser engines is limited due to web compatibility issues (*i.e.*, the browser's ability to properly display content on a web page). Web compatibility depends primarily on the browser engine which is responsible for a browser's key functionalities. Although browser developers can modify and distribute their own versions of Blink on Android, the CMA found that maintaining modified features which have not been adopted by the browser engine's steward is expensive for developers and risks worsening web compatibility. This, and the fact that competing Blink-based browsers offer numerous functionalities that are common, reduces the scope for differentiation and competition between browsers on Android. The web compatibility issues remain despite the existence of a series of open standards, further underlining that this area is appropriate for the CMA's intervention.
- 2.10 Furthermore, Microsoft agrees with the CMA's finding that web compatibility is influenced by indirect network effects, in that online content providers are more likely to develop their websites to ensure compatibility with browser engines used by a larger number of users (para 5.78 of the Final Report). It is more difficult for smaller browser engines to compete effectively and for new browser engines to enter – confirmed by the finding that over 95% of browser vendors on Android use Blink. [CONFIDENTIAL]. Further, as Appendix F to the Final Report notes, where browser engine capabilities differ, online content providers may choose to produce content which is not supported by all browser engines – and likely focus on the most popular engine(s).
- 2.11 Further, as the CMA concludes, Apple's conduct restricts the emergence of cloud gaming.
- (a) As described in the Final Report, the App Store Review Guidelines preclude cloud gaming apps from being distributed as native apps through the App Store, such that only web apps can be offered for iOS cloud gaming. However, as described above, Apple restricts the functionality of web apps. This effectively forces cloud gaming iOS app providers to offer lower-quality services, and gives Apple's own gaming app (Arcade) a non-replicable advantage (since it is offered as a native app).
 - (b) Apple's native app review process for the App Store also impedes competition. That review process can be opaque, and it appears that the rules are not always consistently applied. This has significant implications for developers, as their ability to offer native apps through the App Store may be delayed or they may be excluded altogether.
 - (c) Even if native cloud gaming apps were admitted to the App Store, the requirement to use Apple's proprietary IAP and the high commission payable on in-app purchases make cloud gaming unworkable, because the majority of games in any cloud gaming service are developed by third parties, who receive revenue share from the cloud gaming app provider. As a result, the 30% commission could lead to cloud games generating negative margins.
- 2.12 These restrictions impede competitors whilst also protecting Apple's position in app distribution, since cloud gaming on mobile devices represents an alternative method of game discovery and distribution. Moreover, the restrictions serve to protect Apple's revenue streams – as demonstrated by Table 6.2 in the Final Report, gaming is the largest source of App Store revenue. Further, the restriction also means that customers gaming using iOS devices continue to pay for devices [CONFIDENTIAL].

Detrimental impact on consumers

- 2.13 The conduct and features of the market identified by the CMA have an adverse impact on innovation. This is particularly the case with Apple's WebKit restriction – because there are no competing browser engines on iOS, Apple has limited incentives to invest in WebKit. This also has a negative effect on web app developers that have no choice but to use this browser engine. Due to the requirement that WebKit be used, Apple makes decisions that impact on feature development for all browsers and web apps with integrated browser functionality on iOS. This not

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only restricts competition (as discussed above), but also limits the capability of all browsers and web apps with integrated browser functionality on iOS devices, depriving iOS users of useful innovations from which they would otherwise benefit (including privacy and security features that may be more advanced than those on Safari).

- 2.14 Apple's restrictions on cloud gaming also deprive users of an innovative means of discovering new games ([CONFIDENTIAL]), [CONFIDENTIAL].
- 2.15 There is also a direct impact on user experience. Microsoft agrees with the CMA's conclusion that the experience of iOS users of web apps (including cloud gaming apps) is inferior to the experience of Android device users, due to reduced functionalities (such as push notifications, lack of full screen display, etc.) supported by web apps. Android users can use native cloud gaming apps (in addition to web apps, which can be built using the developer's mobile browser engine of choice). Cloud technology enables users to access and play more complex and sophisticated games, and presents various benefits for customers, such as eliminating the need for expensive hardware, [CONFIDENTIAL].
- 2.16 Microsoft agrees with other negative effects on consumers identified by the CMA, in particular through reduced choice and higher costs for developers (which are passed through to end users)

Consultation Question 2: Do you consider that our analysis is correct with respect to the reference test being met in relation to the supply of mobile browsers and cloud gaming in the UK?

- 2.17 Microsoft broadly agrees with the CMA's key findings in the Final Report:
- (a) Apple and Google are able to exercise their market power over their ecosystems such that, absent intervention, harm to competition will persist and could worsen.
 - (b) Competition within mobile ecosystems could be enhanced in a number of ways, including (i) opening up greater choice in channels for native app distribution and browsers (e.g., allowing third party app stores), (ii) allowing third parties access to parts of the mobile ecosystem which are currently reserved for Apple, and to a lesser extent Google (e.g., access to certain APIs and hardware integration), (iii) preventing Apple and Google from gaining an unfair advantage over rival app developers through operation of their app stores (e.g., restricting Apple's and Google's access to rival app developers' confidential information), and (iv) addressing concerns over the level and structure of the commission charged by Apple and Google to developers of apps providing digital content (e.g., fair pricing rules).
 - (c) Market opening (through the removal of anticompetitive restrictions, e.g., those implemented by Apple (e.g., Apple's mandated use of WebKit for browsers on iOS and its policies preventing cloud gaming providers from offering cloud gaming via native apps), and the introduction of safeguards) would have wide-ranging benefits, in particular by encouraging competition and innovation, and benefitting consumers (e.g., through a better user experience).
- 2.18 Specifically in relation to the to the supply of mobile browsers and cloud gaming in the UK, Microsoft agrees with the CMA that the test for reference is met. Microsoft agrees that there are reasonable grounds to suspect that features of the market prevent, restrict or distort competition, especially given Apple's and Google's market power and significant impediments to competition.
- 2.19 Microsoft notes that the CMA proposes certain other potential interventions in future, including in relation to native app distribution (such as requirements to allow third-party app stores) as well as fair pricing requirements. If the Digital Markets Unit (**DMU**) will be best placed to intervene on these issues, then Microsoft supports that intervention.
- (a) However, in the meantime, before the necessary instruments are adopted for the DMU (and these interventions are introduced), it is necessary to ensure that the delayed

implementation of measures to address these issues does not enable Apple to thwart the emergence of competitive cloud gaming apps.

(b) [CONFIDENTIAL].

2.20 **Consultation Question 3: Do you agree with our proposal to exercise the CMA's discretion to make a reference in relation to the supply of mobile browsers and cloud gaming in the UK?**

2.21 Microsoft welcomes the CMA's proposal to exercise its discretion to make the MIR into the supply of mobile browsers and cloud gaming in the UK, subject to the comments above regarding the restrictions imposed by Apple that are not only applicable to cloud gaming apps, and the need to ensure that these restrictions cannot be used to circumvent or otherwise thwart any measures taken through the MIR.

2.22 We agree with the CMA that the criteria for making the MIR are satisfied. In particular:

- (a) **The scale of the suspected problem.** The MIR is an appropriate response, given that Apple's and Google's conduct leads to serious harm, affects a large number of users and affects a high proportion of the market in question. In particular, it is crucial that both Apple and Google have very high shares of browser usage (combined around 90% in the UK) and browser engine usage (combined around 97% in the UK).
- (b) **The availability of the remedies.** The CMA has wide-ranging powers to impose various appropriate remedies upon the conclusion of its market investigation. As further detailed below, in response to Consultation Question 5, the CMA has already identified a range of appropriate remedies.
- (c) **Undertakings in lieu of a reference (UILs).** It would not be appropriate to accept UILs in these circumstances. Moreover, Microsoft is of the opinion that the CMA should also refuse to accept any UILs following the consultation (if offered). This is because the CMA has not yet undertaken a sufficiently detailed investigation to judge the appropriate scope of any undertakings that could be offered. Given the complexity of the issues at hand, it is necessary to undertake a full market investigation.
- (d) **Alternative powers.** The MIR is the most appropriate tool available to the CMA, and therefore it would not be more appropriate to address the competition problems through alternative powers available to the CMA., including an investigation under the Competition Act 1998 (which would not be appropriate, given the uncoordinated conduct and industry-wide nature of the conduct and its effects). Moreover, the core purpose of the MIR is to investigate and remedy adverse effects on competition, and prevent future harm. Microsoft agrees with the CMA's proposal to make the MIR, and is of the opinion that it is not desirable to wait for the DMU to be established. It is necessary to address issues relating to the supply of mobile browsers (and mobile browser engines) and cloud gaming as soon as possible, given the extent of the consumer harm and the risk that the emergence of innovative technologies is prevented. Further, the CMA will be able to craft remedies that do not require extensive ongoing monitoring using its current powers.
- (e) **Sectoral regulators.** The CMA is best placed to address the issues identified in the Final Report due to its wide-ranging powers. The markets for cloud gaming and mobile browsers do not fall within the remit of any sectoral regulators in the UK.

Consultation Question 4: Do you consider that the proposed scope of the reference, as set out in the draft terms of the reference published alongside this document, would be sufficient to enable any adverse effect on competition (or any resulting or likely detrimental effects on customers) caused by the features referred to above to be effectively and comprehensively remedied?

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- 2.23 Microsoft agrees with the proposed scope of the MIR, covering (i) the supply of mobile browsers and mobile browser engines, and (ii) the distribution of native cloud gaming apps through app stores on mobile devices (and ancillary goods and services).
- 2.24 The proposed scope of the MIR appears to be sufficiently broad to enable any adverse effect on competition and ultimately customers caused by the features identified by the CMA to be effectively and comprehensively remedied.
- 2.25 [CONFIDENTIAL].

Consultation Question 5: Do you have any views on our current thinking on the types of remedies that a MIR could consider (see above and Chapter 8 of the market study final report)? Are there other measures we should consider?

- 2.26 Microsoft agrees with the non-exhaustive list of remedies already identified by the CMA, as set out in para. 2.37 of the Consultation, namely: (i) removing Apple's restrictions on the use of competing browser engines on iOS devices, (ii) mandating access to certain functionality for browsers (including supporting web apps), (iii) requiring Apple and Google to provide equal access to functionality through APIs for rival browsers, (iv) requirements making more straightforward for users to change default browser within their device settings; (v) choice screens to overcome the distortive effects of pre-installation; and (vi) requiring Apple to remove its App Store restrictions on native cloud gaming apps (including those not explicitly framed as applying to only to native cloud gaming apps).
- 2.27 Microsoft has additional comments in relation to two of the remedies identified by the CMA, *i.e.* mandating access to certain functionality for browsers and requiring Apple to remove its App Store restrictions on native cloud gaming apps that the CMA should consider to ensure that the harmful conduct and features of the market identified in the Final Report are appropriately addressed by effective remedies.
- (a) With respect to mandating access to certain functionality for browsers, as Microsoft already stated in its response to the CMA's Mobile Ecosystems Interim Report (**Interim Report**), Apple should be required to offer improved support for web apps within its ecosystem to increase the competitive constraint that web apps impose on app stores. [CONFIDENTIAL].. Moreover, in order to remedy the harms, any requirement to improve support for web apps must be supported by a requirement to remove restrictions on the functionality of web apps.
- (b) In addition, Apple should be required to remove its App Store restrictions on native cloud gaming apps [CONFIDENTIAL].
- 2.28 As noted in Microsoft's response to the Interim Report, the effectiveness of the CMA's interventions will depend on the restrictions Apple is allowed to continue to impose to (purportedly) ensure security and quality – [CONFIDENTIAL] It will also depend on any other indirect measures that Apple may be allowed to continue to impose, such as restrictions having the indirect effect of preventing cloud gaming apps from being offered. [CONFIDENTIAL].
- 2.29 In addition, to ensure that the harms identified by the CMA are effectively remedied, it will be necessary to ensure that the statutory basis for the DMU deals with other related problems identified by the CMA in the Final Report, including fair pricing and the app review process (including an obligation to enable apps that comply with fair, reasonable, transparent and non-discriminatory requirements to be admitted to the App Store).
- 2.30 Microsoft agrees with the CMA on the importance of collecting stakeholder feedback to ensure that the remedies are designed to be as comprehensive and effective as possible.

Consultation Question 6: Do you have any views on areas where we should undertake further analysis or gather further evidence as part of an MIR in relation to the supply of mobile browsers and cloud gaming?

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- 2.31 It is evident from the Final Report that the CMA has already undertaken extensive evidence-gathering. In order to ensure that the CMA's further work on the MIR is robust and delivers the best outcomes for consumers, the CMA should continue to:
- (a) engage with a broad range of stakeholders regarding the detailed design and implementation of the necessary remedies; and
 - (b) test Apple's justifications based on privacy and security, to ensure that appropriate remedies can be implemented in a manner that does not allow circumvention.

3 Conclusion

- 3.1 Microsoft welcomes the CMA's proposal to make the MIR in relation to mobile browsers (and browser engines) and cloud gaming. It considers that the MIR is not only the most appropriate current tool to address competition and consumer harms identified by the CMA, but also affords the most timely way to prevent further harm to competition, innovation and consumers in connection with cloud gaming services and mobile browsers.
- 3.2 As noted throughout this paper, Microsoft agrees with the CMA's findings in the Final Report. With respect to the supply of native cloud gaming apps and mobile browsers, Microsoft agrees that the test for the MIR is met, since Apple's and Google's conduct has adverse effects on consumers and competition. The MIR is also the most appropriate solution to the issues identified by the CMA – the CMA has wide-ranging powers to implement remedies and the CMA has already identified a range of appropriate potential interventions in the Final Report. [CONFIDENTIAL].