STRATEGIC MARKET STATUS INVESTIGATIONS INTO APPLE'S MOBILE PLATFORM

MOZILLA SUBMISSION:
RESPONSE TO CMA'S INVITATION TO COMMENT DATED 23 JULY 2025

Introduction

Mozilla considers the Digital Markets, Competition and Consumers Act 2024 (the "DMCCA") to be an essential pro-business tool. If deployed fully and effectively, it has the potential to unlock growth and investment in the many UK businesses that either compete with, or rely on, the entrenched tech incumbents. It also has the potential to bring many benefits to UK consumers - both directly, through greater choice and transparency, as well as indirectly through the benefits of greater innovation and investment.

As an independent browser developer operating in the UK, as well as one of the companies that has unsuccessfully attempted to launch its own operating system[1], Mozilla welcomes the CMA's careful assessment of Apple's market power and the barriers to entry and expansion faced by independent browsers. We are encouraged by the preliminary conclusions in the CMA's report and support many of its findings, including the designation of Apple as having 'strategic market status' (SMS) in respect of its Mobile Platform. We urge the CMA to implement conduct requirements swiftly to enhance mobile browser competition, improve distribution opportunities for independent browsers, and ensure that third-party browsers and browser engines have the opportunity to compete and innovate on iOS, iPadOS, and the App Store.

Mozilla's Submission

Q1: Do you have any views on our proposed descriptions of the relevant digital activities, namely the smartphone operating system, the tablet operating system, native app distribution, and mobile browser and browser engine?

Mozilla supports the CMA's descriptions of the relevant digital activities at issue. We generally agree that the definitions accurately capture the key functional layers relevant to assessing competition in the mobile ecosystem space.

As the CMA rightly notes, browser engines render web source code into content that users can see and engage with – it is the core underlying software component of a mobile browser that handles the rendering and display of web content. Browser engines are crucial for determining browser performance and functionality. As such, they are complex pieces of software that require significant resources and expertise to maintain.[2]

[1] See, for example, https://blog.mozilla.org/en/mozilla/firefox-os-unleashes-the-future-of-mobile/ and Proposed Decision, 1.22

[2] As demonstrated by the fact that Opera and Microsoft abandoned the development of their own browser engines in 2013 and 2019 respectively.

Specifically with respect to the mobile browser and browser engine definition, Mozilla agrees that the mobile browser and the browser engine are closely integrated services. As a practical matter, each of the major browser engine developers that remain in existence today seeks to develop a browser (Apple with Safari, Google with Chrome, and Mozilla with Firefox) based on their respective browser engine (WebKit, Blink, and Gecko respectively). The notable exception to this is on iOS and iPadOS, where Apple requires browser developers to use WebKit - impacting third party developers on iOS, but not affecting the provision of Safari and WebKit together to iOS users. Although Firefox on iOS is currently developed on WebKit, maintaining and developing Gecko on all other major platforms is a critical route to achieving our mission of an internet that is open and accessible to all.[3]

For these reasons, Mozilla supports the CMA's proposed combination of both Mobile Browsers and Browser Engines as a single digital activity.

Mozilla also supports the provisional conclusion that Apple's provision of Safari (encompassing both the browser and the browser engine) on iOS and iPadOS constitutes a single digital activity. In addition to the reasons outlined by the CMA, Mozilla notes that the underlying code of browsers across both iOS and iPadOS tend to be almost identical. As the CMA notes in paragraph 4.53(c), these differences are attributable to the device (in particular, its size) rather than the mobile browser or browser engine. Moreover, until recently, Apple had a single submission process across both platforms.

Q2: Do you have any views on our provisional conclusion that it would be appropriate to treat those activities as a single digital activity, referred to as a mobile platform, whose purpose is to facilitate interactions between users and providers of digital content and services on Apple's mobile devices in order to allow users to access, view and engage with such content and services on their mobile devices?

In Mozilla's view, there is a strong case for grouping the different digital activities together as a single digital activity referred to as Apple's 'Mobile Platform' given the significant interlinkages between the various services. The CMA has defined Apple's 'Mobile Platform' to include the following digital activities: Smartphone Operating System, Tablet Operating System, Native App Distribution, and Mobile Browser and Browser Engine.[4] Mozilla agrees with the CMA's selection of specific products and services that fall within each of these categories.

Mozilla agrees all of these digital activities in combination (i.e. (i) the operating systems, (ii) native app distribution; and (iii) mobile browser and browser engines) form a complementary package of services and digital content. Used together as a Mobile Platform, they facilitate interactions between users and providers of digital content and services on mobile devices in order to allow users to access, view, and engage with such content and services on their mobile devices.

[3] https://www.mozilla.org/en-GB/about/manifesto/

[4] These capitalised terms have the meaning set forth in the Proposed Decision.

As noted in prior submissions, a typical 'user journey' when using their mobile device might involve accessing content or services via a native app and accessing other content or services through their browser, each of which is technically enabled by (and in fact cannot be separated from) the architecture of the underlying operating system. These services are therefore typically used in combination with one another, and each of the services is for the specific purpose of the delivery of content and services to users. While in theory, one could access content or services only through browsers, or only through native apps, in practice the vast majority of users use both; they are used in combination. At the point at which a native app or browser is used, they have to be used in combination with the operating system, and the nature of the operating system will affect how the underlying browser or native app is designed. Beyond the technical app or browser development perspective, what happens at the operating system level in terms of choice architecture also shapes the user's experience of browsers, app stores and native apps. Where the providers of the operating system are active in these adjacent products, the digital activity should be understood, analysed and regulated as a single digital activity and as an ecosystem or a single platform - rather than as three separate digital activities.

Experience has shown that control of the operating system and other elements of the mobile ecosystem (as opposed to simply a position of market power in browser and browser engine markets) gives vertically integrated browser developers, including Apple, a competitive advantage in browser and browser engine markets, including through rules such as the WebKit restriction on iOS.[5] Similarly, Apple's rules around its respective app store (and how it implements those rules through its operating systems) can have knock-on effects on browser and browser engine markets. Grouping these activities together as 'Apple's mobile platform' reflects the reality that Apple has market power across an ecosystem of products and can be self-reinforcing.

In addition, as the CMA noted in its Proposed Decision, the introduction of AI features will only increase the importance of integration in mobile ecosystems. For example, Apple's marketing for Apple Intelligence includes this integration as a key selling point: "*Siri has an all-new design that's even more deeply integrated into the system experience"* and "*With ChatGPT from OpenAI integrated into Siri and Writing Tools, you get even more expertise when it might be helpful for you — no need to jump between tools*".[6]

If these activities were not grouped together as one digital activity, there is the real danger of an enforcement gap where, for technical reasons due to how particular digital activities have been defined, it may become difficult for the CMA to take appropriate action and create conduct requirements to address (at a minimum) the adverse effects on competition established in the Mobile Browsers Market Investigation ("**MBMI**"). Such an enforcement gap could manifest itself, for example, where operation of Apple's app store and/or the iOS operating system has an effect on mobile browser or mobile browser markets.

Mozilla recognises that there is scope, pursuant to s.20(3)(c) DMCCA for example, to put in place

[5] As set out in the CMA's Mobile Browsers and Cloud Gaming Market Investigation. See also, Mozilla's Five Walled Gardens research, available here.
[6] https://www.apple.com/in/apple-intelligence/

conduct requirements which prohibit the leveraging of market power in one activity (say, mobile operating systems) to increase its strategic position in another digital activity (for example mobile browsers and browser engines, if that was to be defined as a separate designated digital activity to mobile operating systems). However, a large proportion of the conduct which causes harm at the browser and browser engine level is related to self-preferencing decisions made at the mobile operating system level or related to a design feature of the mobile operating system. It is important to avoid a situation where the CMA has to rely on one particular conduct requirement focused on 'leveraging' to address many different types of harmful conduct, ranging from rules on which browser engines are permitted on iOS to decisions on the use of choice screens and prompts on iOS. It would be simpler, lead to less duplication, and would provide greater legal certainty for both SMS firms and any third parties seeking to enforce the conduct requirements, if the three identified digital activities were grouped together into Apple's 'Mobile Platform'.

For the avoidance of doubt, Mozilla's understanding is that, in such circumstances, the CMA would not be prevented from putting in place a general conduct requirement focused on leveraging within the scope of one particular digital activity (i.e. within Apple's Mobile Platforms). For example, Mozilla envisages that a requirement for the designated firm not to use or leverage its position in one part of the Mobile Platform to further its position in another part of the Mobile Platform would fit within the scope of the permitted conduct requirements as set out at s.20(3)(b) or s.20(3)(h) DMCCA.

Additionally, grouping together the activities as a Mobile Platform provides greater flexibility that will enable the CMA to take into account future technological advances. Such changes could include, for example, the expansion and enhancement of AI-enabled tools which may in future change the way that users interact with their mobile devices.

Q3. Do you have views on our provisional finding that the competitive constraint on Apple's mobile platform from Google's and other rival mobile ecosystems is limited? This relates specifically to the competitive constraint in attracting end users and content providers.

Mozilla agrees with the CMA's conclusion that Apple's Mobile Platform faces limited competitive constraints from other Mobile Platforms, including Google's Mobile Platform. As the CMA has observed, app developers (like Mozilla) generally distribute on both Google's and Apple's Mobile Platforms, as must-have and distinct distribution options. They are both must-have distribution options because each of these platforms provides access to a very significant proportion of users in the UK, and because there is limited user switching between those platforms. As a result, there is a limited constraint on the App Store from app developers switching to the Play Store and vice-versa. In short, Apple and Google's Mobile Platforms are effectively separate critical key markets for developers to reach millions of UK users and this is highly unlikely to change in the foreseeable future.

Moreover, Mozilla agrees with the CMA's provisional conclusion that "*[t]he evidence overall does not suggest that there are expected or foreseeable developments that are likely (whether individually or in combination) to be sufficient in scope, timeliness and impact to eliminate Apple's substantial market power in relation to its Mobile Platform over the next five years*". We also

support the point made by many other third parties that Apple's integration of AI services is only likely to further entrench its position in relation to its Mobile Platform over the relevant time period. As Apple CEO Tim Cook recently noted, "[*i*]*n markets where we had rolled out Apple Intelligence, the year-over-year performance on the iPhone 16 family was stronger*".[7]

Mozilla agrees that security, privacy, speed, compatibility with web content and innovative features are among the most important aspects of browser competition.[8] However, due to Apple's insistence upon the use of WebKit as the browser engine on iOS, it is not possible to offer as attractive or differentiated features to users of browsers on iOS. Competing browsers cannot differentiate meaningfully since any innovations (such as speed, privacy features, etc.) are tied to WebKit. As the CMA is aware, some browser vendors do not offer a mobile browser on iOS due to the lack of differentiation, and the extra costs involved.[9]

Mozilla strongly agrees with the CMA's observation that there are interlinkages between mobile browser competition and competition in browser engines where, for example, greater use of a provider's browser engine will increase its share of web traffic, and thereby provide advantages in terms of web compatibility, which will benefit its browser. Because websites cannot be properly rendered in a browser without being compatible with the underlying browser engine, there is a strong incentive for website developers to ensure that their websites comply with the technical requirements of the most widely used browsers and browser engines. Engagement with Firefox by users increases Firefox's market share as measured by site providers – who then invest more in Firefox/Gecko compatibility. Unfortunately, this engagement has been restricted and diverted across platforms for a number of years and - as noted above - is not even possible on iOS today.

Consider also that Apple controls the *pace* at which WebKit incorporates web standards and APIs, meaning that if Apple is slow in its adoption of new web standards, all iOS browsers are equally slowed – thus dampening any distinguishing feature among browsers on iOS. As Apple itself admits, making APIs available to third parties is a significant commitment, and therefore there is sometimes a delay in rolling out new features to third parties. As the CMA noted, this delay gives Safari a competitive advantage as compared to third-party browsers since there are features that are released more quickly on Safari than on competing browsers. Consider, for example, that full screen video on Safari was available in September 2018 but not available to competing third parties until March 2022. Mozilla agrees with the CMA's finding that the WebKit restriction restricts the ability of rival mobile browsers to innovate and develop new features. Indeed, Mozilla itself delayed Firefox's entrance into iOS by around seven years because of the requirement to use WebKit. Until Apple allows the use of alternative browser engines on its Mobile Platform, this degraded experience for browser users will continue.

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[7] Apple earnings call, Q2 2025 (https://www.investing.com/news/transcripts/earnings-call-transcript-apple-q1-2025-beats-eps-forecast-stock-falls-93CH-4018568)

[8] Innovation is a core value at Mozilla, ensuring an open and accessible web for everyone. https://www.mozilla.org/en-US/foundation/annualreport/2024/article/leading-browsing-innovation-for-a-complex-web/

[9] Mobile Ecosystem Market Study, Final Report, Paragraphs 5.47 to 5.49.

Even absent the WebKit restriction, Safari and WebKit are highly likely to maintain their positions due to the significant advantages they are afforded by Apple across its Mobile Platform, in particular the integration between iOS/iPadOS and Safari/WebKit and the preferential treatment that the former are granted in terms of choice architecture and access to operating system features and functionality (among other factors).

Mozilla agrees that the finding of low awareness of - and engagement with - mobile browsers further entrenches Safari's position within Apple's Mobile Platform. However, we would also note that Apple's practices (as outlined in this response, in the Proposed Decision, and in the Final Report of the MBMI) have played a significant role in impacting user behaviour, including awareness of and engagement with mobile browsers. As the CMA is aware, Apple did not even allow iOS/iPadOS users to change their default browser until 2020.

Finally, Mozilla agrees that AI tools and native apps provide a limited competitive constraint on mobile browsers and only in a limited set of use cases.

Q4. Do you have views on our provisional finding that there are high barriers to entry and expansion for mobile platforms?

Mozilla agrees that high barriers to entry and expansion in relation to mobile platforms are relevant topics to be considered as part of this investigation and Mozilla generally agrees with the CMA's conclusions on these topics.

In respect of browsers and browser engines, Mozilla's view (consistent with that of the CMA) is that a range of factors cause significant barriers to entry and expansion for rival browsers and browser engines within Apple's Mobile Platform, including:

- Choice architecture practices provide Safari with a competitive advantage over third-party browsers. For example, and as the CMA notes, pre-installation, prominent placement, and default settings can all influence user behaviour. As the operating system provider, Apple has control over choice architecture for mobile browsers and ensures that Safari is exclusively pre-installed, set to default and always prominently positioned.
- The WebKit restriction, as noted above and extensively analysed by the CMA as part of the MBMI, severely limits the ability of rival browser developers to innovate and develop features on Apple's Mobile Platform. It also further advantages Safari in in-app browsing and places significant additional cost and resource burden on Apple's rivals.
- Interoperability/access to operating system features and functionality is another domain where barriers to entry/expansion for competing browsers and browser engines remain high including due to the lack of or delay of access to necessary APIs and functionality.

Mozilla notes that strong network effects at play with both Apple's and Google's Mobile Platforms will be very difficult to overcome in the short term. Apple and Google retain control over their Mobile Platforms with a vast number of users and, as noted in the Proposed Decision, both have held high and stable shares over a sustained period, with other Mobile Platforms accounting for

a small share. As such, both Apple's and Google's Mobile Platforms will remain 'must have' for app developers like Mozilla.

End-users are often sticky and disinclined to switch between Mobile Platforms. As the CMA has noted, end users purchase devices infrequently and once a user has purchased a device, they are likely to be locked into that Mobile Platform for a substantial period of time. Research that the CMA has previously considered on this point, showed that more than 9 out of 10 users stayed with the operating system they had previously (91% iOS to 95% Android).[10]

Data from the CMA's Mobile Ecosystems Market Study ("**MEMS**") illustrates that iOS and Android have each maintained remarkably consistent levels of usage in the UK over recent years[11]. This level of entrenched market power (each with user bases counted in the tens of millions in the UK) means that iOS and Android are effectively separate mobile ecosystems, and gives Apple and Google respectively the opportunity to use that sustained market power to enhance their position in various activities within their respective ecosystems. Microsoft[12], Mozilla[13] and others have tried to launch their own OSs, but have been unable to compete and form their own respective mobile platforms. This demonstrates the very high barriers to entry for successfully launching a mobile operating system.

In short, Apple's and Google's Mobile Platforms are effectively separate critical key markets for developers to reach millions of UK users and this is highly unlikely to change in the foreseeable future.

Q5. Do you have views on our provisional finding that the competitive constraint on Apple's mobile platform from alternatives to content distribution within Apple's mobile ecosystem, and alternatives on non-mobile devices is limited?

Mozilla agrees that competitive alternatives to Apple's App Store are limited and that these alternatives impose a limited constraint on the App Store. The result is that developers and users are required to use the App Store with no meaningful improvement in the quality of the service provided.

As compared to desktop operating systems, or even on Android devices, there are alternative methods for users to access and for app developers to distribute native apps, including (in theory at least) through preinstallation of the app by OEMs, access through alternative app stores, and through sideloading. As the CMA notes, however, Apple does not allow alternative native app distribution channels such as third-party app stores or sideloading within its Mobile Ecosystem, nor does it pre-install third-party apps on its mobile devices.

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[10] https://assets.publishing.service.gov.uk/media/66b47c8afc8e12ac3edb0c3e/Verian_Mobile_Browsers_Research_Final_Report.pdf at p. 17.

[11] For example, see Figure 3.3, Mobile Ecosystems Market Study, Final Report

[12] Microsoft gives up on Windows 10 Mobile - BBC News

[13] Mozilla Will Stop Developing And Selling Firefox OS Smartphones | TechCrunch and Mozilla blasts at Android and iOS for lack of openness - Neowin

Mozilla disagrees with Apple's position that app developers have multiple web-based distribution options. While Android users can download mobile browsers outside of the Google Play Store, no such functionality exists for iOS because of restrictions imposed by Apple that prohibit this distribution method.

Mozilla depends on the Apple App Store to distribute its iOS app to users and no alternatives exist to replace this tightly controlled distribution channel. Thus, Mozilla agrees that competitive alternatives to Apple's App Store are limited and impose fundamentally no constraint on Apple's App Store.

Q6. Do you have views on our provisional conclusion that there are no expected or foreseeable developments that are likely (whether individually or in combination) to be sufficient in scope, timeliness and impact to eliminate Apple's substantial market power in the provision of its mobile platform over the next 5 years?

Mozilla agrees with the CMA's conclusion that there are no expected or foreseeable developments that are likely (whether individually or in combination) to be sufficient in scope, timeliness and impact to eliminate Apple's substantial market power in the provision of its Mobile Platform over the next five years.

Although AI will undoubtedly have an impact in technology markets, whether this technology will serve as fierce competition to Apple's Mobile Platform remains uncertain. If anything, it is more likely than not that Apple could harness AI technology to enhance (rather than erode) Apple's market power in the provision of its Mobile Platform. This is because as the operating system provider, Apple will remain in control of the deployment of AI on its Mobile Platform and Apple can control how third party connectivity providers interact with end-users on Apple mobile devices and potentially influence how those providers offer their services. Mozilla believes that it is particularly important that Apple's restrictions on third parties to develop features and functionality within the Apple Mobile Platform does not hold back innovation, such as integration of AI into mobile browsers, for example.

Mozilla supports the CMA's view that Apple's substantial market power in the provision of its Mobile Platform is entrenched and no expected or foreseeable developments are likely to be sufficient in scope, timeliness, and impact to eliminate this substantial market power.

Q7. Do you have views on our provisional conclusion that Apple has substantial and entrenched market power (SEMP) and a position of strategic significance (POSS) in respect of its mobile platform?

Mozilla agrees with the CMA's conclusion that Apple has SEMP and POSS in respect of its Mobile Platform. .

As noted above, Apple's share of UK mobile users has remained remarkably stable and in the tens of millions for many years, and Mozilla does not see a realistic prospect of this changing over the next five years.

Apple's control over iOS means it can determine how apps (including browser apps) are distributed, and determine or substantially influence how they are consumed by the end user.

The scale of Apple's Mobile Platform means that for app developers like Mozilla the ability to distribute through iOS is a 'must-have'. As noted above, Apple's choices on the design of iOS means that there is no alternative other than Apple's App Store for end users to download Firefox.

With respect to mobile browsers, Firefox and, indeed, all other browsers on iOS, are only able provide a limited competitive constraint to Safari. This is primarily driven by Apple's control over iOS, which (i) allows it to make choice architecture choices which tend to favour Safari at the expense of other browsers; and (ii) leads to interoperability issues on iOS affect other browsers' ability to compete with Safari including the requirement that rival browsers must use Apple's WebKit browser engine (limiting functionality that would distinguish Firefox, for instance), as well as Safari's preferred access to functionality.

Mozilla agrees that alternatives to mobile browsers (namely native apps and AI tools) only provide a limited competitive constraint for a limited set of use cases. Additionally, Mozilla agrees that non-mobile browsing alternatives, such as desktop browsing, are generally a complement rather than a substitute for mobile browsing.

Mozilla further agrees that, given the importance of control over iOS that the three activities (OSs, native app distribution and mobile browsers and browser engines) are both technically and as a matter of user behaviour, very closely connected, it is the right approach to group them together as one digital activity: Apple's Mobile Platform. As noted above, these activities are used in combination with each other to fulfil a specific purpose: facilitate interactions between users and providers of digital content and services on mobile devices in order to allow users to access, view, and engage with such content and services on their mobile devices.

In relation to the regulatory environment, Mozilla considers other developments (both within and outside the UK) are highly unlikely to impact Apple's market power in the UK in the relevant timeline and beyond. For example, Apple's DMA compliance measures (such as the introduction of a browser choice screen) are strictly limited to the EU. Apple could have chosen to extend such measures to the UK and has chosen not to do so. Even if it were to do so voluntarily, it could withdraw or change these measures at any point, leaving UK consumers and businesses with no legal/product/business certainty.

Q8. Do you have any other views in relation to the assessment/evidence set out in the proposed decision?

Mozilla agrees with many of the principles laid out by the CMA in its Proposed Decision. Although already considered by the Proposed Decision, we reiterate here a few points of importance for a more competitive browser and browser engine market.

Apple's control over iOS means it can take decisions that impact on the use of products across its wider mobile ecosystem, and within its Mobile Platform in particular, including on users' choice

of browser and app developers' choice of browser engine. Over a number of years, these decisions, typically taken at the OS level (such as to pre-installation, placement of apps on the home screen, design of menus around defaults) have tended to favour Safari over other browsers. It is encouraging to see that this is recognised by the CMA and that it is minded to group mobile browsers and browser engines within the definition of Apple's Mobile Platform so that these practices can be most effectively addressed.

Apple's current restrictions preventing the use of alternative browser engines on iOS to Apple's version of WebKit plainly cause harm to Mozilla, and to competition in the relevant iOS markets. This is a good example of a decision taken at the operating system level which has significant knock-on ramifications across other markets within the iOS mobile ecosystem. The most obvious harm caused by the WebKit restriction is the harm to competition in browser engines; since it directly prevents the other two major browser engines: Mozilla's Gecko and Google's Blink, from even being present within Apple's Mobile Platform.

A more competitive mobile browser environment would provide UK consumers with greater choice, better browsers where continuous improvements are made, and ultimately encourage stronger growth and innovation that will benefit not only consumers but the many millions of businesses that rely on browsers as gateways to reach their customers. The benefits of increasing competitive pressure in these core services cannot be understated and should not be delayed.

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