



We welcome the opportunity to comment on the proposed remedies to conclude the investigation into browsers and cloud gaming. The focus of our comments relates to connectivity services, which are essential enablers for the development of a successful and innovative cloud gaming market.

The timeline of submissions to working papers and the publication of the remedies consultation means that the remedies proposed do not yet take account of our submission to working paper 6 (WP6) and the importance of access to connectivity, particularly 5G network slicing quality of service, as a key enabler of the mobile cloud gaming market.

Working Paper 6 – mobile cloud gaming

Our submission to WP6 explained

- 3GPP standards, established by industry to develop 5G network slicing, set a greater number of slicing categories. And the 3GPP standards have the capability for further innovation of categories by MNOs.
- Real time engagement between the CGSP, user and the MNO/CPaaS is required to enable dynamic slicing, whereby an application /game has variable needs accommodated during a connectivity session, for example, different requirements for levels of a game. This requires connectivity to be independent and open¹.
- For MNOs/CPaaS to drive connectivity innovation service revenues from 5G Slicing B2B2C is critical, requiring direct engagement between the CGSP and the MNO/CPaaS from the App and user device.

End user consumers will benefit where CGSPs are able to deploy the full capability of 5G network slicing. Consumers will experience the highest available quality of network service appropriate to the game they are engaging with. Consumers will benefit from innovation by the CGSP, and wider ecosystem innovation including MNOs and CPaaS connectivity service providers. The CMA needs to ensure that connectivity is available without barriers to CGSPs.

¹ This is being developed into a harmonised service set for mass market consumption [PowerPoint Presentation \(gsma.com\)](#)



The remedies for cloud gaming need to include a requirement for the CGSP and the MNO/CPaaS to be able to directly communicate to agree connectivity at the requested quality is available, to control the device modem and to record and authenticate for payment.

The remedies consultation draws out a number of additional considerations.

Geographic scope of service and remedy

With respect to cloud gaming the CMA notes that remedies need to recognise that multinational CGSPs require a consistent service across the countries where their service is available². The CMA does not consider that CGSPs will also require a consistent connectivity service. A consistent service, with transparency and clarity agnostic of OEM/OS would be achieved via the CGSP accessing, globally standardised connectivity APIs from MNOs directly or via CPaaS companies. MNOs are developing standardised APIs which will ensure that CGSPs can place orders for connectivity quality of service e.g., latency for their applications, which will be applied regardless of the end users' MNO service provider. We recognise this issue is to address a forwarding looking market demand, but critical to resolve to enable market development.

In app transaction and connectivity value creation

The CMA has proposed Option D3 to remedy a barrier to mobile cloud gaming market development. CGSPs have told the CMA that enabling in-game transactions is important as CGSPs use a range of monetisation strategies, including the purchase of virtual goods, upgrades, and additional content. These upgrades and additional content maybe reliant upon the user having a differentiated connectivity experience, provided by the CGSP in order to enable the upgrade or content³. In this situation the CGSP requires both the ability to interact unhindered with the MNO/CPaaS and users' device.

² Remedies consultation 3.9

³ The in-app transaction involving a change in quality of service for connectivity would work with the CGSP being able to "instruct" the Operating system to the negotiated connectivity (the app being able to communicate with the MNO / CPaaS to ask for access to a specific slice at that immediate time by an in-app request. The MNO/CPaaS would grant that request by providing a URSP. The CGSP will need to make a request to the operating system to accept / enable the URSP communication flow.



Remedies and monitoring under the new Digital Markets regime

The enquiry team are considering whether recommending that the DMU impose the SMS designation, and remedies recommended by this investigation, presents a good course of action. There are strong merits of the DMU imposing and managing the remedies collectively, and in cohesion with other SMS remedies as part of a big picture regulatory regime. The DMU route would better facilitate adaptation of remedies in the event of technological or organisational change. Whichever route is adopted it should include a recommendation that the DMU follows up on the connectivity aspects we have raised in relation to cloud gaming.