Consultation response form

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Consultation title	Cloud services market study, Interim report
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Confidentiality

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Your details: We will keep your contact number and email address confidential. Is there anything else you want to keep confidential? Delete as appropriate.	Nothing
Your response: Please indicate how much of your response you want to keep confidential. Delete as appropriate.	None
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Your response

Question	Your response
Question 4.1 Do you agree with our assessment of how customers buy cloud infrastructure services and how cloud providers seek to acquire customers?	*Is this response confidential? – N (delete as appropriate)*
Question 4.2: Do you agree with our characterisation of the market outcomes in supply of cloud infrastructure services?	*Is this response confidential? – N (delete as appropriate)*
Question 5.1: Do you agree with our analysis of potential barriers to switching and multi-cloud? As part of this: **a) Please provide your views on the extent to which, and in what ways, egress fees are a barrier to switching and multi-cloud. Please also provide your views on the extent to which egress fees currently charged relate to the incremental cost of providing egress.** **b) Please provide your views on whether specific business practices of cloud providers, particularly the hyperscalers, exacerbate technical barriers to switching and multi-cloud.** **c) Please provide your views on how committed spend discounts are set and the impact these discounts have on the incentives of customers to multi-cloud.**	a) While there are cloud providers that do not charge egress fees for transfering data off their clouds, it is crucial to recognise that facilitating the export of complex and extensive workloads from one cloud service provider (CSP) to any other IT environment, including on-premise, involves operational costs for any cloud vendor, as also noted by the 2020 Switching Cloud Providers and Porting Data's ([SWIPO](#)) [portability code](#). In particular, the code recognises the need to allow providers of data processing services to charge customers for network charges, and associated costs, incurred. Furthermore, recoupment of switching costs through fees ensures future cloud network and service investment. b) The ability for customers to adopt multicloud and hybrid strategies renders necessary the presence of some level of interoperability and portability. In this context, open and interoperable cloud-based standards and software have become more popular and more widely available to consumers and businesses. Large technology companies offer open-source PaaS and SaaS and let customers build or run

	third party PaaS and SaaS on their IaaS (see examples <u>here</u> and <u>here</u>). While being widely available, cloud-based open standards and software are designed in a way that preserve safety, privacy, and security. As a result, cloud-enabled organisations can flexibly move workloads between different CSP. Moreover, the number of tools required to support cloud environments is reduced, and ultimately supports integration of existing business systems with the cloud.
	Restrictive software licensing practices, whereby CSPs, in particular legacy software vendors, engage in commercial tying of their services without providing any technical justifications to those practices, raise an important concern as they may lead to customer lock-in. As a result of these practices, customers may encounter significant obstacles in their ability to deploy their existing enterprise software on the CSP of their choice. In some cases, customers may even be entirely unable to transfer their software to the different CSP. The Ofcom interim report on cloud acknowledges these issues. However, given the scale at which these licensing practices affect UK customers, this issue requires further attention from competition authorities.
Question 5.2: Do you agree with our analysis of potential barriers to entry and expansion?	The cloud services industry has experienced significant expansion in the past decade, with particularly notable growth in recent years. The COVID-19 pandemic underscored the effectiveness of cloud service providers (CSPs) as a reliable means of ensuring resilience and maintaining business continuity, surpassing the traditional on-premises alternatives. Moreover, the migration to cloud infrastructure has become central to the worldwide digital transformation of businesses, including those in the United Kingdom, that contribute to the UK economy as a whole. This progress has been

driven by a dynamic competitive landscape among CSPs, who strive to differentiate themselves and offer innovative services to consumers and businesses. Consequently, customers now have the opportunity to select highly customised cloud services and products, tailored to their personal / business needs.

The competitiveness of cloud services is evidenced by the growing prevalence of multicloud and hybrid cloud strategies adopted by organisations across various scales. The simultaneous usage of multiple CSPs is driven by factors such as geographic or regulatory governance demands / requirements, the necessity for uninterrupted business operations, or the desire to leverage unique features offered by specific CSPs. In essence, organisations are reluctant to rely solely on a single CSP, opting instead to diversify their CSP. This trend highlights how competition in the cloud sector continues to foster a broader range of options for both businesses and consumers.

At the same time, it is important to recognise that the adoption of multicloud and hybrid cloud strategies by organisations, in particular, is a business-driven decision, influenced by a variety of factors. In exercising the freedom of contracting, organisations should have the autonomy to choose whether they prefer to utilise various cloud and non-cloud services from a single CSP or multiple CSPs. Therefore, it is crucial to emphasise that the choice of a multicloud strategy while offering multiple benefits from the standpoint of innovation and operational resilience, needs to remain a customer business-decision vs a regulatory requirement.

Lastly, it is noteworthy that the growing worldwide expenditure on cloud services, combined with the dynamic competition among CSPs aimed at delivering differentiated and innovative solutions to consumers and

	businesses, signifies the presence of opportunities for new actors to enter the cloud sector, engage in customer competition, and achieve significant growth.
Question 5.3: Do you agree with our analysis of the hyperscalers' relationship with ISVs? As part of this, please provide your views on whether our analysis of the hyperscalers relationship with ISVs applies to both larger and smaller ISVs.	
Question 6.1 Do you agree with our assessment of how well competition is working in cloud infrastructure and what are the potential implications of a lack of competition?	See answer to the question 5.2
Question 8.1 Do you agree that egress fees are an area of potential intervention? How might such an intervention be approached?	
Question 8.2: Do you agree that interoperability and portability are areas of potential intervention? How might such an intervention be approached?	
Question 8.3: Do you agree that committed spend discounts are an area of potential intervention? How might such an intervention be approached?	
Question 8.4: Do you agree that transparency of billing is an area of potential intervention? How might such an intervention be approached?	
Question 8.5: What, if any, potential unintended consequences do you anticipate might be associated with the interventions set out above, and how might they interact with each other if implemented?	CCIA would like to draw attention to certain trade-offs associated with the issue of interoperability. Specifically, there is a concern that mandated interoperability may diminish the incentives for CSPs to invest in developing new services and impede their innovation efforts, if service requirements are standardised. Consequently, this could adversely impact both consumers and businesses in the UK.

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