CMA CLOUD SERVICES MARKET INVESTIGATION COMPANY A RESPONSE TO THE ISSUES STATEMENT

1 INTRODUCTION

- 1.1 This submission is made by [≫] on behalf of [≫]. We welcome the opportunity to set out our views in response to the Issues Statement published on 17 October 2023 by the Competition and Markets Authority ("**CMA**") regarding competition in the cloud infrastructure services sector in the UK.
- 1.2 $[\aleph]$ is a Global $[\aleph]$ company. $[\aleph]$.
- 1.3 [※].
- 1.4 The CMA is required to decide whether any feature, or combination of features, of each relevant market prevents, restricts or distorts competition in connection with the supply or acquisition of any goods or services in the UK or a part of the UK.¹ If the CMA finds that there is an adverse effect on competition, it has a duty to decide whether it should take action and if so what action should be taken, and/or whether it should recommend that others take action, to remedy, mitigate or prevent the adverse effect on competition concerned or any detrimental effect on customers so far as it has resulted from, or may be expected to result from, the adverse effect on competition.²
- 1.5 We set out below our views on the CMA's initial hypotheses concerning which features of the markets for the supply of public cloud infrastructure services ("**cloud services**") in the UK may be adversely affecting competition and which potential remedies may be suitable to address the adverse effects on competition identified. [≫] key concern relates to the adoption of pricing models by hyperscalers which facilitate the bundling of services such as [≫] or [≫] by offering them at a nominal price which does not reflect cost but is cross-subsidised by other services within the hyperscalers' portfolios. This significantly exacerbates the effect of artificially high egress fees on the functioning of the market for the provision of cloud services.
- 1.6 Please note that this response contains confidential information and business secrets, disclosure of which might significantly harm the legitimate business interests of [≫] for the purpose of Section 244(3)(a), Part 9 of the Enterprise Act 2002. Should the CMA have any follow-up questions regarding [≫] response, please address these to [≫] and [≫]).

2 EXECUTIVE SUMMARY

- 2.1 In summary, [[≫]] principal comments on the theories of harm set out in the Issues Statement are as follows:
 - (a) [≫] believes that a significant proportion of customers are likely to face high technical barriers to multi-cloud and switching which make it more difficult and/or costly for customers to multi-cloud or switch providers. [≫] believes that requiring the hyperscalers to (1) increase the degree of standardisation through broader principles-based obligations, (2) be more transparent about the interoperability of their cloud services and (3) [≫].

¹ Enterprise Act 2002, section 134(1).

² Enterprise Act 2002, section 134(4).

- (b) [%] believes that hyperscalers' high egress fees harm competition by creating barriers to switching and multi-cloud leading to their entrenched position. Egress fees should instead better reflect the actual network costs incurred by the cloud provider. Steps should be taken to increase the visibility and understanding of egress fees for potential customers, potentially as part of wider requirements to improve predictability and control spend on cloud. All services offered by hyperscalers should be 'unbundled' or 'separated' into their individual elements to allow for itemised billing, so that customers can better understand what they are paying for and predict future usage, as well as understanding the egress costs of changing cloud provider for individual [%] believes that customers should have the freedom elements of service. to purchase separate products/services from the hyperscalers and their competitors.
- (c) While $[\gg]$ believes that committed spend discounts are reasonable business practices, they can and do raise barriers to entry and expansion for smaller cloud service providers by incentivising customers to concentrate their business with one provider as a result of the ability of the hyperscalers to absorb so much of the aggregate spend. This produces particularly egregious results when service elements on which cloud providers such as [%]compete are excessively discounted or cross-subsidised by service elements which only the hyperscalers can provide. For instance, this could occur when hyperscalers leverage their customer lock-in in the cloud, by excessively discounting the price of their own [%] and/or [%] products). This results in several barriers to entry for [%] and the potential loss of cloud, [%], and/or [%] contracts to the incumbent hyperscaler. Moreover, this situation could also occur in circumstances whereby a customer's non-cloud spend with a hyperscaler effects the level of compute discount received. For example, a customer's Google Ad spend could influence the level of compute discount received from Google Cloud Platform.
- (d) To the extent that software/ecosystem licensing is bundled with unrelated products/services, [≫] believes that this should be prohibited. [≫] believes that increasing the price transparency of cloud services that are sold to customers as part of a larger bundle that includes cloud services and software and prohibiting the bundling of non-related services/products with cloud services would help to ensure effective competition.

3 THEORY OF HARM 1: TECHNICAL BARRIERS MAKE SWITCHING AND MULTI-CLOUD HARDER AND LIMIT COMPETITION BETWEEN CLOUD SERVICE PROVIDERS

- 3.1 We agree with the CMA's initial hypothesis that the presence of technical barriers may hinder customers' ability to set up a multi-cloud architecture and switch cloud providers.
- 3.2 [≫] agrees with Ofcom's finding that a significant proportion of customers are likely to face high technical barriers to multi-cloud and switching which make it more difficult and/or costly for customers to multi-cloud or switch provider.³ However, [≫] acknowledges that some of the technical barriers arise as a result of the various proprietary services offered by Microsoft Azure, Amazon Web Services ("**AWS**") and

³ Multi-cloud portfolios are increasingly necessary to increase the security and resiliency of businesses and consumers alike.

Google Cloud (collectively, the "**hyperscalers**") that are utilised by their customers. The higher the number of applications and the more tightly integrated they are into the proprietary services of the origin cloud, the greater the difficulty for customers to multicloud or switch provider as the cloud services being utilised are not necessarily provided by other cloud services providers and the applications/features have been written to run on the incumbent provider's infrastructure.

- 3.3 To migrate an application to a different or additional cloud, the target cloud needs to support the application and the application's underlying dependencies, such as configuration and sourcing of data and virtual stack compatibility. Some technical differences always exist between clouds and as a result some technical effort is always required to multi-cloud or switch provider. In addition, to the extent that APIs, protocols and workflows are different across cloud providers, parts of a customer's application may need to change in order to enable its applications to exchange data and information (i.e., interoperate) with a storage service if the customer wants to integrate different cloud services hosted on several clouds. This makes multi-cloud and switching challenging because significant re-engineering work may be required particularly for sizable migrations. The scale of the effort and resources required will depend on the actual switching scenario and use-case. As set out above, generally, the effort is likely to be material for customers porting a large number of applications which are tightly integrated with proprietary cloud services offered by the incumbent cloud services provider. In this regard, [186] is aware that several of its customers are proactively moving towards more generic cloud services offerings in order to make multi-cloud options more effective.
- 3.4 [%] switching experience as a customer illustrates the difficulties faced due to a hyperscaler's technical and contractual lock-in. If the process of migration was so onerous for [%], it would be all the more so for a customer which did not have its own [%] but was looking to transfer from a hyperscaler to a competing provider such as [%].
- 3.5 In order to facilitate multi-cloud and switching, [≫] believes that requiring the hyperscalers to (1) increase the degree of standardisation through broader principles-based obligations,⁴ (2) to be more transparent about the interoperability of their cloud services (this could be done for example by giving customers the right to demand interoperability technical specifications and pass them to the new provider as part of the porting process) and (3) [≫].

4 THEORY OF HARM 2: EGRESS FEES HARM COMPETITION BY CREATING BARRIERS TO SWITCHING AND MULTI-CLOUD LEADING TO CLOUD SERVICE PROVIDERS ENTRENCHING THEIR POSITION.

4.1 We agree with the CMA's initial hypothesis that the presence of high fees connected with the transferring of data outside of a cloud provider's infrastructure may constitute a barrier to multi-cloud and switching ("egress fees"). This problem is compounded by the hyperscalers' approach to bundling services for free for which there is

⁴ By way of an example of a recent interoperability remedy in the technology sector, to address the competition concerns identified by the European Commission in the professional social network services market in the proposed acquisition of LinkedIn by Microsoft, one of the commitments offered by Microsoft included allowing competing professional social network service providers to maintain current levels of interoperability with Microsoft's Office suite of products through the so-called Office add-in program and Office application programming interfaces.

competition (such as [%] and [%], as offered by [%]) with services for which the hyperscalers have a dominant market position and enjoy pricing power.

- 4.2 As set out in Ofcom's Cloud Services Market Study Final Report, egress fees apply when a customer is transferring data to an end user or application, when moving data between the cloud and its on-premises data centres, when moving data between different cloud providers, either as part of a multi-cloud architecture, or as part of switching between two cloud providers.⁵
- 4.3 [\gg] does not consider that the high egress fees charged by hyperscalers are connected with the cost of data transfers. [\gg] believes that the egress fees charged by hyperscalers are excessive and are being utilised by the hyperscalers to lock-in customers to the hyperscalers' respective ecosystems. The hyperscalers do this by charging different prices for data transferred within their ecosystem versus data transferred out of their ecosystem. This can make it significantly more expensive for a customer to adopt a multi-cloud model or to use third party services even if there are commercial, quality of service or other technical arguments in favour of doing so. In this way, the high egress fees charged by hyperscalers acts as a significant disincentive for customers to use the [\gg], [\gg], or other services of a third party if the customer also procures cloud services from the same hyperscaler. [\gg].
- 4.4 The effect of such artificially high egress fees on the competitive market can be significantly exacerbated if the hyperscaler adopts a pricing model which facilitates the bundling of services such as [%] or [%] by offering them at a nominal price which does not reflect cost but is cross-subsidised by other services within the hyperscaler portfolio. For example, [%] understands that [%] services or [%] services are often offered to customers free by the hyperscalers, provided that customers utilise the relevant hyperscaler's cloud services, as the traffic stays within the hyperscaler's own ecosystem. If hyperscalers include [%] and/or [%] as part of a bundle with cloud services for free, [%] is unable to offer its [%] and/or [%] offerings to a customer on a standalone basis at a price which would compete with the hyperscaler's [X] and/or [X] offering as part of the bundle. This makes it difficult and significantly more costly for customers to switch, multi-cloud or use another provider's [%] and/or [%] services, as the cost of doing so may be disproportionate to an enhanced [12] and/or [12] offerings provided by a third party.
- 4.5 [[≫]].⁶. The significant investment incurred by [[≫]] (i.e., circa [[≫]]) to develop a product to limit the impact of egress fees on its [[≫]] offering illustrates the market distortion resulting from disproportionately high egress fees as they not only constitute a significant barrier to switching and multi-cloud, but also impact customer choice regarding the [[≫]] provider utilised.
- 4.6 Having considered the potential options identified by the CMA to address any concerns around egress fees, [≫] believes that egress fees should better reflect the costs incurred by the cloud provider and that steps should be taken to increase the visibility and understanding of egress fees for potential customers, potentially as part of wider requirements to improve predictability and control spend on cloud. As regards the latter option, as set out above, some cloud providers bundle their products, making it difficult for customers to compare costs between providers as the fees for products/services are integrated into one price. This can also be a means to disguise cross-subsidisation

⁵ Fees are also charged for internal data transfers i.e., data transfers within a cloud provider's infrastructure. However, these tend to be lower than egress fees and in some cases are waived.

⁶ [%].

and below-cost pricing. [%] believes that all services offered by hyperscalers which enjoy pricing power in the marketplace should be 'unbundled' or 'separated' into their individual elements to allow for itemised billing, so that customers can better understand what they are paying for and predict future usage. This would also enable customers to make "true" comparisons of the costs of individual service elements offered by competing providers.

5 THEORY OF HARM 3: COMMITTED SPEND DISCOUNTS RAISE BARRIERS TO ENTRY AND EXPANSION FOR SMALLER CLOUD SERVICE PROVIDERS BY INCENTIVISING CUSTOMERS TO CONCENTRATE THEIR BUSINESS WITH ONE PROVIDER.

- 5.1 While [≫] agrees with Ofcom's finding that committed spend discounts could encourage customers to concentrate spend with a primary cloud provider and may represent a barrier to customers using other cloud providers,⁷ [≫] believes that committed spend discounts are reasonable business practices. However, committed spend discounts become problematic when combined with the unique ability of the hyperscalers to absorb so much of the aggregate spend.
- 5.2 There are numerous publicly available examples of businesses agreeing to committed spend discounts with the hyperscalers for a period of several years.⁸ Although committed spend discounts can benefit customers by reducing their costs, the way these discounts are structured can incentivise customers to use a single hyperscaler for all or most of their cloud needs.⁹ The effect of this is exacerbated if the hyperscaler uses excessively discounted or free pricing within a bundle of services to protect against competition in individual services, as discussed in Section 4. In addition, committed spend discounts can incentivise customers to purchase third-party software on the hyperscalers' marketplaces as the spend can count towards the commitment. [≫] has received requests from customers asking whether the relevant [≫] software can be purchased via the hyperscalers' marketplaces as the spend counts towards meeting the customers' commitments. Hyperscalers should not be able to use spend in their non-cloud related portfolios to leverage customers' cloud spend.
- 5.3 When customers move workflows out of their current cloud provider to another cloud provider, it makes it harder to reach spending commitments, which have the effect of locking customers in and disincentivising multi-cloud. In essence, the prospect of receiving a lower discount makes it less attractive for customers to use a rival for some of their existing or new needs that can be run on a cloud resource. The problem is compounded by the scale of the hyperscalers as they are able to leverage wider support and benefits in re-negotiation/negotiation with their customers over commitments since they control so much of the aggregate spend. Ultimately, if

⁷ Ofcom Cloud Services Market Study Final Report, paragraphs 5.177, 5.194, 5.230.

⁸ In 2019, CNBC reported that Apple has a multiyear agreement with AWS with a commitment to spend at least USD 1.5 billion on AWS over the course of five years (available here: <u>https://www.cnbc.com/2019/04/22/apple-spends-more-than-30-million-on-amazon-web-services-a-month.html</u>). In 2021, CNBC reported that Lyft committed to spend at least USD 80 million per year for the next three years, totalling at least USD 300 million (available here: <u>https://www.cnbc.com/2019/03/01/lyft-plans-to-spend-300-million-on-aws-through-2021.html</u>). In 2022, CNBC reported that Pinterest has committed to spend at least USD 750 million on AWS through mid-2023 over the course of a six-year period (available here: <u>https://www.cnbc.com/2019/03/22/pinterest-must-spend-at-least-750-million-on-aws-ipo-filing.html</u>).

⁹ In 2009, the European Commission found that Intel abused its dominant position in the market for x86 CPUs by giving wholly or partially hidden rebates to computer manufacturers on condition that they bought all, or almost all, their x86 CPUs from Intel.

customers have difficulty in switching and using multiple providers, it makes it more challenging for new entrants like [\approx] to gain scale and challenge the hyperscalers.

5.4 [≫] believes that the outright prohibition of the use of specific discount structures such as certain rates or volume requirements that cloud providers may use may negatively impact pro-competitive discounting strategies. However, [≫] believes that prohibiting the use of discount structures which inhibit competition through a principle-based approach could potentially be a more proportionate and effective remedy, particularly if targeted at the hyperscalers and combined with a requirement for hyperscalers to unbundle their services to allow for itemised billing. In principle, discounts should be correlated with spend; they do not necessarily need to be linear, but discounts should not be egregiously disconnected e.g., a 5% drop in spend should not lead to a 50% drop in overall discount.

6 THEORY OF HARM 4: SOFTWARE LICENSING PRACTICES BY CLOUD SERVICE PROVIDERS RESTRICT CUSTOMER CHOICE AND PREVENT EFFECTIVE COMPETITION

- 6.1 [≫] understands that some of the hyperscalers software licensing practices include restricting the use of licensed software on other cloud platforms or requiring additional fees or licenses, offering preferential pricing or access to licensed software on their own cloud platform, and bundling licensed software with cloud services or other products. These practices can create lock-in effects for customers who rely on specific software for their cloud applications and services and create competitive advantages for the cloud providers who own or control the software. To the extent that software licensing is bundled with unrelated products/services, [≫] believes that this should be prohibited.
- 6.2 [≫] believes that increasing the price transparency of cloud services that are sold to customers as part of a larger bundle that includes cloud services and software and prohibiting the bundling of non-related services/products with cloud services would help to ensure effective competition. In this regard, as set out at paragraph 4.6 above, [≫] believes that all services offered by hyperscalers should be 'unbundled' or 'separated' into their individual elements to allow for itemised billing, so that customers can better understand what they are paying for and predict future usage. [≫] believes that customers should have the freedom to purchase separate products/services from the hyperscalers.

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