### AWS Response to the CMA's Licensing Working Paper

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### 1. **INTRODUCTION**

1.1 AWS's public response to the CMA's Licensing Working Paper ("Licensing Working Paper"), as submitted on 25 June 2024, briefly summarised AWS's views on the Licensing Working Paper and noted its agreement with the CMA's emerging views in respect of Microsoft's anti-competitive licensing practices (the "AWS's Public Response").

- 1.2 Further to AWS's responses to the CMA's questions during the hearing with the Inquiry Group that took place on 2 July 2024 (the "Hearing"), this submission provides additional evidence (and clarifications where needed) in relation to:
  - 1.2.1 the must-have nature of Microsoft's productivity software;
  - 1.2.2 how Microsoft's licensing restrictions operate;
  - 1.2.3 the impact of Microsoft's licensing restrictions on customers and AWS;
  - 1.2.4 [%].
  - 1.2.5 AWS's views on the CMA's proposed remedies to address Microsoft's anticompetitive licensing restrictions, as set out in the Licensing Working Paper; and
  - 1.2.6 To the extent possible and appropriate, the CMA's follow-up questions on licensing received on 12 July 2024 (the "Hearing Follow-ups").
- 1.3 AWS would like to reiterate that we are encouraged by the CMA's attention on Microsoft's anti-competitive licensing practices and its emerging views detailed in the Licensing Working Paper. We support the Principles of Fair Software Licensing and are encouraged by the CMA's considerations on how best to ensure that customers can select the IT provider of their choice to run Microsoft's immensely popular productivity software, which competition authorities have found in the past to give Microsoft a very substantial degree of market power.
- 1.4 Software licensing issues are distinct from the rest of the CMA's emerging views in the working papers, as they relate to Microsoft leveraging its legacy, "must-have" productivity software to restrict customers' ability to work with the IT provider of their choice.

#### 2. MICROSOFT'S PRODUCTIVITY SOFTWARE IS A "MUST HAVE" FOR CUSTOMERS

2.1 Competition authorities have long recognised that Microsoft has a very substantial degree of market power in the supply of productivity software. 1 It is encouraging that the CMA shares this view in the Licensing Working Paper. 2

- 2.2 Indeed, according to Gartner, Microsoft has held a very high, stable share (between 90-100%) for a very long time in the supply of productivity software for PCs globally. Similarly, a study conducted by Omdia found that Microsoft's share of productivity software in the public sector is approximately 90%; more than seven times the share of the next largest competitor in the US. Microsoft also has substantial market power in the supply of PC and server OSs globally. Microsoft held an estimated 85.6% share in the global supply of PC OSs in 2023, and a 72% share in the global supply of server OSs according to data from 2018-2019. As a result, Microsoft software continues to be an essential requirement for IT customers. The recent global IT issues caused by a Crowdstrike software update affecting Microsoft Windows-based systems shows how widely-used and important Microsoft's software products are to IT customers around the world.
- 2.3 Given the extensive use of Microsoft software, many of Microsoft's most popular software products, including Microsoft Windows Server, Windows Client, Microsoft Office, and Microsoft 365 (formerly Office 365), are must-have for most IT customers. This is also demonstrated by the fact that, subject to Microsoft's licensing terms, many customers seek to run Microsoft software on a range of AWS services. For example:
  - 2.3.1 AWS's virtual desktop services (Amazon WorkSpaces and Amazon AppStream 2.0) provide users remote access to virtual desktops and applications. Virtual desktop services (commonly referred to as VDI services) allow customers to use cloud-based desktops to enable end-users to access the documents, applications and resources they require. AWS customers expect to be able to use Microsoft's productivity software on these cloud-based desktop services, just as they would on a local computer. For instance, a customer would expect to be able to use Microsoft 365 on a virtual desktop service, given the importance of the underlying productivity software to customers. However, as a result of the licensing restrictions, customers are either unable to use Windows software or are severely limited in the instances in which they can use Windows software for virtual desktop services hosted on third-

See <a href="https://www.microsoft.com/licensing/docs/view/Listed-Providers">https://www.microsoft.com/licensing/docs/view/Listed-Providers</a>.

Licensing Working Paper, section 3 and paragraphs 6.8 and 6.9, where the CMA has found Microsoft to have significant market power in the supply of Windows Server, Windows 10/11, Microsoft SQL Server, Microsoft Visual Studio and Microsoft's productivity suites.

See <a href="https://blogs.gartner.com/craig-roth/2021/07/30/should-microsoft-office-365-be-afraid-of-google-workspace-gartner-2020-market-share-report-says/">https://blogs.gartner.com/craig-roth/2021/07/30/should-microsoft-office-365-be-afraid-of-google-workspace-gartner-2020-market-share-report-says/</a>.

See <a href="https://ccianet.org/news/2021/09/new-study-shows-microsoft-holds-85-market-share-in-u-s-public-sector-productivity-software/">https://ccianet.org/news/2021/09/new-study-shows-microsoft-holds-85-market-share-in-u-s-public-sector-productivity-software/</a>.

<sup>&</sup>lt;sup>5</sup> See <u>https://netmarketshare.com/</u>.

Statista, Share of the global server market by operating system in 2018 and 2019.

See <a href="https://blogs.microsoft.com/blog/2024/07/20/helping-our-customers-through-the-crowdstrike-outage/">https://blogs.microsoft.com/blog/2024/07/20/helping-our-customers-through-the-crowdstrike-outage/</a>.

party (AWS) infrastructure. [%]. Further, while customers may want to choose Linux as the OS for their Amazon WorkSpaces and Amazon AppStream instances, they are practically limited by which software applications are compatible with Linux OS. Microsoft's productivity software is incompatible with Linux, meaning that Linux cannot realistically be used as an alternative to Windows Server given the popularity and demand for Microsoft products from customers. For instance, there is no Linux version available for Microsoft 365 or Visual Studio. [%]. Additionally, approximately [%]% of [%] run Microsoft Office. Therefore, contrary to Microsoft's claim, a majority of cloud-computing applications are based on Microsoft products like Windows Server rather than open-source solutions like Linux, and are therefore relevant to those customer opportunities. Microsoft itself recognises the importance of VDI workloads as its own 2023 Annual report notes that "Azure Virtual Desktop and Windows 365... together surpassed \$1 billion in annual revenue..."

- 2.3.2 Amazon Elastic Compute Cloud ("EC2") provides secure, resizable compute capacity in the cloud and is one of AWS's core offerings. Customers can use EC2 to run virtually any type of application in the cloud. Customers expect to be able to run the same Microsoft software they can run on-premises, such as Windows Server and SQL Server, on EC2. In fact, when AWS pioneered the provision of cloud services, a key component was providing customers with the flexibility to design their solutions to meet their needs, including moving between, and interoperating across, different IT environments. AWS was the first IT services provider to offer pay-as-you-go pricing, creating an immediate reduction in the cost and burden of switching providers and solutions. However, customers cannot use their existing Windows Server licences (or various other Microsoft software licences) purchased or renewed after October 2019 to run on EC2, whereas they can use their existing Microsoft software licences to run on Azure virtual machines and on any other cloud that is not one of a specific list of cloud services providers such as AWS, Google Cloud and Alibaba Cloud (i.e., Listed Providers).<sup>10</sup>
- 2.3.3 Amazon Relational Database Service ("RDS") is a database service that makes it simple to set up, operate, and scale databases in the cloud. SQL Server is one of the most popular database offerings that many customers use in their existing on-premises deployments, and therefore customers expect to be able to use it on RDS if they choose to migrate to AWS (or if they have migrated to AWS in the past).
- 2.4 The inability of customers to run Microsoft software on services of Listed Providers, or the significant additional expense customers must incur to do so, prevents customers from running "must-have" Microsoft software on a cloud services provider of their choice and is thereby undermining competition. For completeness, AWS notes that Microsoft is also technically included in the definition of Listed Providers. However, Microsoft has overriding Azure terms which enable customers to use Microsoft software on Azure without incurring

Licensing Working Paper, paragraph 3.49 (a).

<sup>&</sup>lt;sup>9</sup> See <a href="https://www.microsoft.com/investor/reports/ar23/#">https://www.microsoft.com/investor/reports/ar23/#</a>.

Since October 2019, Microsoft's licensing restrictions make it [ $\times$ ] or legally impossible for customers to run key Microsoft software on the cloud services of three specific competitors: Amazon, Google and Alibaba. Microsoft calls these the "Listed Providers".

additional costs, effectively rendering Microsoft's inclusion as a Listed Provider meaningless. <sup>11</sup> Given the importance of Microsoft's productivity software and the impact on customer choice, it is therefore of significant importance for the CMA to keep considering, in parallel to price factors, how non-price factors associated with Microsoft's software licensing practices ultimately impact customers' choice of cloud services provider, to the benefit of Azure. [%].

See Gartner, Microsoft's Restrictions for Licensing Windows and Office 365 for VDI/DaaS on AWS and Other Hyperscale Clouds Require Attention (29 October 2020): "[a]Ithough Azure is a listed provider, the Office 365 restrictions placed on other listed providers do not apply to virtual desktops running on Azure", and Microsoft's "licensing verbiage specifically provides less expensive and less onerous licensing options for Azure than for the other listed providers."

### 3. HOW MICROSOFT'S LICENSING RESTRICTIONS OPERATE

3.1 To help contextualise how Microsoft operationalises its licensing restrictions, it is helpful to keep in mind that, broadly, there are two ways that a customer can run Microsoft software on a third-party cloud provider's services (e.g., on AWS):

- 3.1.1 subject to Microsoft's licensing restrictions, the customer can purchase a licence for the software directly from Microsoft or a Microsoft reseller and then use that licence to run the software on the cloud provider's services (commonly referred to as BYOL); or
- 3.1.2 the customer can purchase a licence for the Microsoft software from the third-party cloud provider or another reseller (who, in either case, resells the licence from Microsoft), subject to the terms of the applicable licensing terms agreed between Microsoft and the cloud services provider or other reseller. To this end, AWS has entered into a SPLA with Microsoft, which permits AWS to resell certain Microsoft software licences to customers for use on AWS's cloud services.
- 3.2 AWS currently resells licenses for the following Microsoft software products via the SPLA with Microsoft:
  - 3.2.1 SQL Server for use with EC2, RDS and RDS Custom;
  - 3.2.2 Windows Server for use with EC2, Amazon AppStream 2.0, and Amazon Workspaces;
  - 3.2.3 Microsoft Office Desktop Applications (excluding Microsoft 365) for use with EC2, Amazon AppStream 2.0 and Amazon Workspaces; and
  - 3.2.4 Visual Studio for use with EC2.
- 3.3 Both (i) customers' ability to use Microsoft's productivity software with the cloud services provider of their choice under licenses they have already purchased from Microsoft *i.e.*, BYOL; and (ii) other cloud services providers' ability to resell Microsoft's software through the SPLA are impacted by Microsoft's restrictive licensing practices, albeit in different ways. These practices are explained below, with added detail around the context in which they were introduced and how Microsoft uses them to limit customer choice.

# Microsoft did not impose many restrictions on the cloud services on which Microsoft software could be run prior to October 2019

- 3.4 Prior to October 2019, Microsoft's customers were able to deploy Microsoft software on any compatible third-party competitor computer or IT service, including on cloud services provided by AWS and other Listed Providers (a term Microsoft had not yet invented), so long as the hardware was fully dedicated to that customer (also known as "single-tenancy"). Therefore, these customers were not required to effectively repurchase licences they already held in order to use them on the computers of their choice (*i.e.*, they could BYOL their existing licences to the IT provider of their choice).
- 3.5 AWS launched Windows Server based instances in 2008. These instances enable customers to deploy and run Windows-based applications and workloads on EC2 in the cloud. There was customer demand for these innovative services, and Microsoft did not at that point have a cloud computing offering (Azure was launched in 2010). As such, Microsoft and AWS agreed

on the terms of a SPLA, under which AWS could resell a number of Microsoft's products under specific conditions in conjunction with AWS's services.

[**≫**].

- 3.6 In October 2019, Microsoft made significant changes to its product terms on BYOL for Microsoft software, which entirely prohibited customers from running specific Microsoft software on a Listed Provider (other than Azure) and made running other types of Microsoft software on a Listed Provider (other than Azure) more expensive for customers (the "2019 Changes"). Appendix 1 includes a redline of Microsoft's current licensing terms highlighting the difference between Microsoft's licensing terms before and after the 2019 Changes.
- 3.7 As detailed below, the restrictions Microsoft imposed under the 2019 Changes still only apply to Listed Providers, and therefore continue to impose unfair conditions for customers (and prospective customers) wishing to run Microsoft software on Listed Providers (other than Azure). This unfairly limits customers' ability to choose their preferred cloud services provider and directly impacts the ability of Listed Providers (and other Azure competitors that run some or all of their services on Listed Providers) to compete for IT workloads relating to Microsoft software. In particular:
  - 3.7.1 [%].
  - 3.7.2 [**%**]. <sup>12</sup> <sup>13</sup> <sup>14</sup> <sup>15</sup> <sup>16</sup>
- 3.8 The anti-competitive effects of the 2019 Changes were highlighted by The Economist in October 2020:<sup>17</sup>

"Since the licensing changes went into effect Gartner has received several hundred inquiries about them. An executive from a Fortune 500 health-care company that had picked AWS as its cloud provider says that the new rules meant an extra annual cost of [USD] \$100 million, forcing the firm to slow down its transition to the cloud. "They are writing licence terms to get customers to believe their only choice is Azure," complains a vice-president of a medium-sized firm in Wisconsin that felt forced to switch from AWS. [...] An IT chief at another midwestern firm likens the new rules to a long lease on a car where "the lessor says you can only use Chevron gas, not BP or Exxon"."

Microsoft's 2022 Changes do not address the significant anti-competitive impact of Microsoft's licensing restrictions

See <a href="https://www.microsoft.com/en-us/licensing/news/updated-licensing-rights-for-dedicated-cloud">https://www.microsoft.com/en-us/licensing/news/updated-licensing-rights-for-dedicated-cloud</a>.

<sup>&</sup>lt;sup>12</sup> [**※**].

See <a href="https://www.microsoft.com/en-us/licensing/news/options-for-hosted-cloud">https://www.microsoft.com/en-us/licensing/news/options-for-hosted-cloud</a>.

See Gartner, Microsoft's Restrictions for Licensing Windows and Office 365 for VDI/DaaS on AWS and Other Hyperscale Clouds Require Attention (29 October 2020): "Organizations that license Windows 10 Enterprise for virtual desktop used on Listed Providers will need to move to Virtual Desktop Access (VDA) per user, increasing annual per seat cost by USD 38 to USD 66 per year, or 30% to 110%."

See <a href="https://www.microsoft.com/en-us/licensing/news/updated-licensing-rights-for-dedicated-cloud">https://www.microsoft.com/en-us/licensing/news/updated-licensing-rights-for-dedicated-cloud</a>.

The Economist, 22 October 2020 edition, "How Satya Nadella turned Microsoft around". See also <a href="https://www.wired.co.uk/article/microsoft-antitrust-dmu-dma-bundling-slack">https://www.wired.co.uk/article/microsoft-antitrust-dmu-dma-bundling-slack</a> and <a href="https://slack.com/intl/en-au/blog/news/slack-files-eu-competition-complaint-against-microsoft">https://slack.com/intl/en-au/blog/news/slack-files-eu-competition-complaint-against-microsoft</a>.

- 3.9 After complaints about Microsoft's anti-competitive licensing restrictions were filed with the European Commission, Microsoft changed its licensing terms with effect from 1 October 2022 (the "2022 Changes"). Microsoft claimed that the 2022 Changes effectively addressed rival cloud services providers' outstanding concerns with Microsoft's licensing restrictions, including through the introduction of the flexible virtualisation benefit and the Cloud Solution Provider-Hoster ("CSP-Hoster") program (which is part of the Cloud Solution Provider ("CSP") program). However, the 2022 Changes do not address the significant anti-competitive impact of Microsoft's licensing restrictions. In particular:
  - 3.9.1 [×].<sup>20</sup>
  - 3.9.2 [**×**].<sup>21</sup>
  - 3.9.3 [**×**].<sup>22</sup>
  - [**≫**].
- 3.10 Prior to 1 August 2023, customers were unable to use Microsoft 365 on AWS's hardware either by purchasing the licences directly from AWS or bringing their own existing licences to AWS, due to Microsoft's unfair licensing restrictions.
- $3.11 \ [\%].$
- 3.12 [×].23
- 3.13 [X].<sup>24 25 26</sup>
- $3.14 \ [\%].$
- $3.15 \ [\%].$
- $3.16 \ [\%].$

See <a href="https://blogs.partner.microsoft.com/partner/new-licensing-benefits-make-bringing-workloads-and-licenses-to-partners-clouds-easier/">https://blogs.partner.microsoft.com/partner/new-licensing-benefits-make-bringing-workloads-and-licenses-to-partners-clouds-easier/</a> and Appendix 1 for excerpts of the relevant sections of the Microsoft licences.

See <a href="https://blogs.partner.microsoft.com/partner/new-licensing-benefits-make-bringing-workloads-and-licenses-to-partners-clouds-easier/">https://blogs.partner.microsoft.com/partner/new-licensing-benefits-make-bringing-workloads-and-licenses-to-partners-clouds-easier/</a>.

See https://www.microsoft.com/en-us/licensing/news/options-for-hosted-cloud.

See Cloud services market study: interim report, Ofcom, 5 April, paragraphs 7.12 and 7.13.

See <a href="https://blogs.partner.microsoft.com/partner/new-licensing-benefits-make-bringing-workloads-and-licenses-to-partners-clouds-easier/">https://blogs.partner.microsoft.com/partner/new-licensing-benefits-make-bringing-workloads-and-licenses-to-partners-clouds-easier/</a>.

<sup>&</sup>lt;sup>23</sup> [**%**].

See <a href="https://www.directionsonmicrosoft.com/blog/microsoft-gives-some-customers-a-very-premium-way-to-run-office-on-aws/">https://www.directionsonmicrosoft.com/blog/microsoft-gives-some-customers-a-very-premium-way-to-run-office-on-aws/</a>.

<sup>&</sup>lt;sup>25</sup> [**※**].

<sup>&</sup>lt;sup>26</sup> [**※**].

Although customers are now able to only BYOL their existing Microsoft 365 licences on WorkSpaces, the following restrictions still apply:

- 3.16.1 [%];
- 3.16.2 [%];
- 3.16.3 [**>**]; <sup>27</sup> <sup>28</sup>
- 3.16.4 [%];
- 3.16.5 [X];<sup>29</sup>
- 3.16.6 [%].
- 3.17 [ $\times$ ].

Microsoft's settlement with CISPE, and its previous licence changes, do not address the significant anti-competitive impact of Microsoft's licensing restrictions

- 3.18 On 11 July 2024, CISPE reached a settlement agreement related to CISPE's competition complaint filed against Microsoft with the European Commission in November 2022. 30 However, the conclusion of this agreement should not be viewed as an indication of Microsoft having addressed existing concerns around their licensing restrictions. The settlement is simply Microsoft paying a fee to CISPE, and CISPE members who choose to accept, in exchange for them stopping their complaint to the European Commission and any other public or private campaigns against Microsoft's licensing practices. [%]. Microsoft will endeavour to offer those who sign the agreement additional abilities to sell Microsoft's software, but there are no guarantees. Microsoft expressly excluded AWS from being part of the agreement. [%].
- 3.19 AWS further notes that Microsoft claimed that the 2022 Changes amounted to granting like-for-like economics on Microsoft software independently of it being used on Azure or on another non-Listed cloud provider. However, notwithstanding the concerns AWS has raised around specific restrictions imposed on Listed Providers, the 2022 Changes still raise significant concerns for non-Listed Providers. AWS has set out a couple of examples of concerns of non-Listed Providers on Microsoft's licensing conditions: [%]
- 3.20 Therefore, Microsoft's settlement with CISPE does not address the significant anticompetitive impact of Microsoft's licensing restrictions.

See <a href="https://www.microsoft.com/en-us/licensing/news/options-for-hosted-cloud">https://www.microsoft.com/en-us/licensing/news/options-for-hosted-cloud</a>.

See Gartner, Microsoft's Restrictions for Licensing Windows and Office 365 for VDI/DaaS on AWS and Other Hyperscale Clouds Require Attention (29 October 2020): "Organizations that license Windows 10 Enterprise for virtual desktop used on Listed Providers will need to move to Virtual Desktop Access (VDA) per user, increasing annual per seat cost by USD 38 to USD 66 per year, or 30% to 110%."

See <a href="https://www.microsoft.com/licensing/terms/productoffering/AmazonWorkSpacesDeployments/EAEA5;">https://www.microsoft.com/licensing/terms/productoffering/AmazonWorkSpacesDeployments/EAEA5;</a> [%].

See <a href="https://cispe.cloud/cispe-and-microsoft-agree-settlement-in-fair-software-licensing-case/">https://cispe.cloud/cispe-and-microsoft-agree-settlement-in-fair-software-licensing-case/</a>.

Licensing Working Paper, paragraph 2.18 and footnote 2.17.

### 4. IMPACT OF LICENSING RESTRICTIONS ON CUSTOMERS AND AWS

Microsoft's unjustified licensing restrictions have resulted in significant cost increases for customers wishing to run Microsoft's software on AWS, reduced AWS's competitiveness and, consequently, led to lost revenues

- 4.1 The widespread use of, and historic and ongoing reliance on, Microsoft software means that Microsoft's licensing restrictions have positioned Azure as, [%], irrespective of the quality or merits of Azure's services. To demonstrate this, AWS includes as [%].
- 4.2 As briefly mentioned in AWS's response of 23 November 2023 to the CMA's (initial) Issues Statement, a study by Professor Frédéric Jenny published on 22 March 2023<sup>32</sup> estimated that the first-year extra cost caused by customers needing to repurchase existing BYOL Microsoft 365 software licences to use them in conjunction with third party cloud services was approximately EUR 560 million in Europe, and a cost increase of up to 80-100% for Microsoft software compared to when there was no such requirement. This study also estimated that Microsoft's SQL Server licensing restrictions "can result in a relative price increase of up to 300% for customers choosing a non-Azure cloud infrastructure." <sup>33</sup> These estimates demonstrate how Microsoft's licensing fees are detrimental to customers. They have also negatively impacted Microsoft's cloud service competitors. <sup>34</sup> Microsoft itself highlights the significant discrepancies between Azure and other Listed Providers in its public marketing, stating that, for example, "[o]ther cloud service providers may claim to have similar savings to [Azure], but you'll need to repurchase your Windows Server licence on those clouds", <sup>35</sup> and "AWS is up to 5 times more expensive than Azure for Windows Server and SQL Server." <sup>36</sup>
- 4.3 Not only do Microsoft's licensing restrictions create additional costs for customers, but they also prevent customers from choosing Listed Providers, including AWS, even if they might wish to do so based on other features, including innovation or security. [≫].<sup>37</sup>
- 4.4 The impact of the licensing restrictions on specific workloads means that customers will frequently choose not to run the workload on a non-Azure Listed Provider's service if they cannot run it in conjunction with Microsoft software. [⋟<].

Non-price factors imposed by Microsoft's licensing restrictions significantly restrict customer choice

4.5 However, many of the current restrictions do not have such an obvious price impact but are still equally valuable for customers, and hence the need for the CMA's analysis to consider the importance of non-pricing factors in quantifying the harm caused by Microsoft's restrictions.<sup>38</sup>

Jenny, Unfair Software Licensing Practices, 2023 (available at: <u>Quantification-of-Cost-of-Unfair-Software-Licensing Prof-Jenny -June-2023 web.pdf (cispe.cloud)</u>, pp. 27, 30-31.

<sup>&</sup>lt;sup>33</sup> Ibid p. 26.

See <a href="https://cispe.cloud/upcoming-study-hints-at-cartel-like-behaviour-by-large-legacy-software-providers/">https://cispe.cloud/upcoming-study-hints-at-cartel-like-behaviour-by-large-legacy-software-providers/</a>

See <a href="https://azure.microsoft.com/en-us/pricing/azure-vs-aws/cost-savings/?activetab=pivot:windowsservertab">https://azure.microsoft.com/en-us/pricing/azure-vs-aws/cost-savings/?activetab=pivot:windowsservertab</a>.

<sup>36</sup> See https://azure.microsoft.com/en-us/pricing/hybrid-benefit/#overview.

<sup>&</sup>lt;sup>37</sup> [**≫**].

Licensing Working Paper, paragraph 6.6.

Indeed, Microsoft's omissions of some of its most popular functionalities of its productivity software when run anywhere else but Azure have a material impact on which cloud services provider customers ultimately choose – while unfairly tipping customers to choose Azure. For example:

- **4.5.1** [**≫**].
- 4.5.2 [%].
- 4.5.3 [**×**].<sup>39 40</sup>
- 4.5.4 [%].

### Specific examples of customers who have been harmed by Microsoft's licensing restrictions

- 4.6 To further illustrate the harmful impact of Microsoft's licensing restrictions, AWS sets out below a series of examples from its experience with customers who abandoned plans to migrate workloads to AWS, or chose to migrate workloads away from AWS, or who incurred significant additional expenses as result of Microsoft's licensing restrictions: [%].
- 4.7 AWS appreciates that the CMA has asked for internal documents evidencing these lost customers. 41 [S<]. 42 It is also impossible for AWS to be aware of customers that considered AWS as a supplier and silently rejected us due to Microsoft's licensing restrictions. 43
- 4.8 Articles in publications such as Reuters, Bloomberg and The Economist include some additional customer stories and anecdotes that illustrate the impact of these anticompetitive terms and, based on AWS's experience with our own customers, are representative of the impact on many other customers.<sup>44</sup>
- 4.9 AWS notes that another Listed Provider, Google, is on the public record about its deep concerns with Microsoft's restrictive licensing practices. <sup>45</sup> For example, on 21 June 2023, Google submitted a public letter to the US Federal Trade Commission outlining how

- <sup>41</sup> [%].
- <sup>42</sup> [**>**].
- <sup>43</sup> [**※**].
- See, for example https://www.bloomberg.com/news/articles/2022-04-12/microsoft-customers-decry-cloud-contracts-that-sideline-rivals and <a href="https://www.reuters.com/business/microsofts-cloud-business-targeted-by-eu-antitrust-regulators-2022-04-01/">https://www.wsj.com/articles/microsoft-faces-antitrust-complaint-in-europe-about-its-cloud-services-11647463334</a>.
- See <a href="https://www.reuters.com/technology/google-steps-up-microsoft-criticism-warns-rivals-monopoly-cloud-2024-02-26/">https://www.reuters.com/technology/google-steps-up-microsoft-criticism-warns-rivals-monopoly-cloud-2024-02-26/</a> and <a href="https://www.reuters.com/technology/google-says-microsofts-cloud-practices-anti-competitive-slams-deals-with-rivals-2023-03-30/">https://www.reuters.com/technology/google-says-microsofts-cloud-practices-anti-competitive-slams-deals-with-rivals-2023-03-30/</a> and <a href="https://www.itpro.com/cloud/cloud-computing/google-claims-microsoft-is-making-it-more-expensive-for-customers-to-use-rival-cloud-services">https://www.itpro.com/cloud/cloud-computing/google-claims-microsoft-is-making-it-more-expensive-for-customers-to-use-rival-cloud-services</a>.

See <a href="https://learn.microsoft.com/en-us/azure/azure-sql/virtual-machines/windows/business-continuity-high-availability-disaster-recovery-hadr-overview?view=azuresql">https://learn.microsoft.com/en-us/azure/azure-sql/virtual-machines/windows/business-continuity-high-availability-disaster-recovery-hadr-overview?view=azuresql</a>.

See <a href="https://learn.microsoft.com/en-us/shows/data-exposed/azure-sql-db-license-free-standby-replica-data-exposed">https://learn.microsoft.com/en-us/shows/data-exposed/azure-sql-db-license-free-standby-replica-data-exposed</a>.

Microsoft's complex licensing practices distort competition in the cloud and lessen customer choice. 46

### Impact of licensing restrictions on AWS

- 4.10 During the Hearing [ $\gg$ ], <sup>47</sup> AWS's principal concerns regarding Microsoft's licensing restrictions relate to their impact on customers and customer choice, which has knock-on effects on AWS as a supplier. There are many reasons why the impact on AWS is challenging to quantify, [ $\gg$ ].
- 4.11 The licensing conditions imposed by Microsoft effectively require customers to repurchase their existing licenses for many of Microsoft's software, [×]. For instance, despite Azure launching VDI services significantly later than AWS (and immediately after the 2019 Changes), due to the licensing restrictions, [×].
- 4.12 Most importantly, the higher licensing costs directly affect customers,  $[\times]$ .<sup>48</sup>
- 4.13 In certain circumstances,  $[\times]$ :

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4.13.1 [>].<sup>49</sup>
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4.13.2 [%].

4.14 [%].

4.15 [%].

4.16 [%].50

4.17 [**%**]. <sup>51</sup>

4.18 [%].

See <a href="https://www.regulations.gov/comment/FTC-2023-0028-0069">https://www.regulations.gov/comment/FTC-2023-0028-0069</a>.

<sup>&</sup>lt;sup>47</sup> [**※**].

<sup>&</sup>lt;sup>48</sup> [×].

Linux is a free, open-source operating system whereby customers only pay for the underlying compute service.

Licensing Working Paper, paragraph 4.7.

<sup>&</sup>lt;sup>51</sup> [**※**].

# 5. MICROSOFT'S STATEMENTS AND JUSTIFICATIONS REGARDING ITS LICENSING RESTRICITIONS DO NOT HOLD UP TO SCRUTINY

- 5.1 It becomes apparent from the Licensing Working Paper that Microsoft has attempted, on several occasions, to justify and downplay before the CMA the impact of its licensing restrictions on other cloud services providers and customers. However, careful consideration of Microsoft's justifications quickly makes clear that these simply fail to hold up to scrutiny, and are even borderline deceitful.
- 5.2 Hoping to be of help to the CMA's investigation, we set out below our views regarding each of Microsoft's justifications as referenced by the CMA in the Licensing Working Paper.
- As Microsoft's public response on the Licensing Working Paper ("Microsoft Public Response") was only published on 24 July 2024, AWS has not had sufficient time to consider in detail and rebut each of Microsoft's assertions in the Microsoft Public Response. [%], AWS states that it fundamentally disagrees with the arguments set out in the Microsoft Public Response. In particular:
  - 5.3.1 Microsoft, despite its assertions to the contrary, is dominant in the supply of productivity software as pointed out frequently by the CMA and other parties. This means that customers have no choice but to accept Microsoft's licensing restrictions given the "must-have" nature of their products.
  - 5.3.2 Microsoft sets up a straw man by stating that it will not provide its products for free.<sup>52</sup>
    This has never been the request of customers and is not the issue being complained about and we are not claiming that Microsoft does not have a right to benefit from its IP rather, AWS simply asks that customers are provided with the same ability to use their Microsoft products on all other cloud services providers under the same terms as they are permitted to do so on Azure.
  - 5.3.3 Microsoft erroneously states that "customers can freely use products" and simply ignores the myriad of restrictions both with regard to services and features of Microsoft products that customers are prevented from using on AWS or other cloud services providers.<sup>53</sup> The entire framework of the Microsoft Public Response does not actually engage in how the licensing conditions operate or how they clearly restrict competition on an arbitrary basis rather than for technical reasons.
  - 5.3.4 Microsoft claims that an adverse effect on competition ("AEC") can only arise if AWS's costs are raised to the point of foreclosure. In doing so it conflates the impact on AWS, which while important, pales to the impact Microsoft's licensing restrictions are having on customers. <sup>54</sup> In setting up this approach, Microsoft explicitly chooses to ignore customers and how these licensing restrictions severely impact a customer's ability to choose the IT provider of their choice which prevents competition on the merits and distorts competitive outcomes. <sup>55</sup> For example, the impact of forcing customers to buy their existing license again for use on the cloud or forcing customers

Microsoft Public Response, paragraph 2.7.

<sup>&</sup>lt;sup>53</sup> Microsoft Public Response, paragraph 1.3(d).

Microsoft Public Response, paragraph 1.3(a).

<sup>&</sup>lt;sup>55</sup> Microsoft Public Response, paragraph 1.3(f).

to acquire expensive VDA add-on licenses on AWS but not Azure, does not show up in the margins or revenue of cloud services providers, but has a real and significant impact on the costs for individual customers and on their choice of cloud services provider. These are not costs that AWS can absorb (as Microsoft suggests it should) but rather costs that are imposed by Microsoft directly on customers for arbitrary reasons. Microsoft in its analysis implies that the restrictions raise rivals' costs and does not admit that in many instances they actually raise customer costs without AWS or other providers passing these costs on e.g., paying twice for an existing license or a paying for a VDA add-on license. 56 This means that even if AWS were to fully absorb the cost for the additional copy of a pre-existing license a customer is forced to repurchase due to BYOL restrictions, which is an economic absurdity, customers still must purchase VDA add-on licenses that add costs for them on top of the additional and unnecessary license AWS would theoretically fully fund. By trying to refocus attention on margins made by cloud services providers rather than how Microsoft's licensing restrictions affect customer choice, Microsoft is seeking to direct attention away from the real and present harm caused to customers by its licensing practices which prevent competition on the merits.

- 5.3.5 When assessing the impact of Microsoft's licensing restrictions, Microsoft fails to consider how its restrictions may cause customers to choose Azure, even if they would not have done so without the restrictions. Instead, by simply focusing on an economic analysis of margins, Microsoft has not engaged with non-price related restrictions nor with restrictions on BYOL usage.
- 5.3.6 The arguments set out in the Microsoft Public Response, quite aside from the fact that they do not meaningfully engage with the licensing restrictions themselves, only relate to a limited set of Microsoft's software rather than the wider set of products on which Microsoft have imposed licensing restrictions. Microsoft claims that the principal concern is not whether customers can freely use the products but whether they are more expensive on cloud services providers other than Azure. However, this fails to account for the myriad of ways in which Microsoft either refuse to make a product available or refuse to make a product with the same features available to customers other than those on Azure.

# Microsoft claims that it imposed licensing restrictions to stop breaches of its intellectual property through BYOL

- 5.4 Microsoft's claim that it imposed licensing restrictions to stop breaches of its intellectual property through BYOL<sup>57</sup> does not hold up to scrutiny. When customers BYOL their Microsoft software onto AWS, it is Microsoft (and not AWS) that is responsible for monitoring its customers' compliance with Microsoft's licensing terms, as per Microsoft's own licensing terms. Given that this relationship is entirely between Microsoft and the customer, it does not make sense to "punish" AWS (or the other Listed Providers) for any breaches in licensing agreements that occur between Microsoft's customers and Microsoft.
- 5.5 Moreover, as far as AWS is aware, Microsoft has no evidence or data that unlicensed use of BYOL software is any more likely on AWS (or on the other Listed Providers) in comparison to Non-Listed Providers. If Microsoft's concerns are around legitimate customers having

Microsoft Public Response, paragraph 1.3(f).

Licensing Working Paper, paragraph 7.45 (a).

somehow more unlicensed use of BYOL software on AWS versus other cloud services providers, these concerns are completely unfounded – indeed, AWS provides tools aimed at helping customers ensure they are compliant with their third- party licensing entitlements (*i.e.*, AWS License Manager). <sup>58</sup> If Microsoft's concerns relate to intentional piracy by customers (in a scenario where it is considered that customers running Microsoft's software on Listed Providers' clouds are more prone to intentional piracy then customers running this on non-Listed Providers), licensing terms are not the solution – licensing terms by definition have no impact on piracy.

Microsoft claims that its licensing restrictions are more stringent for AWS and Google (Listed Providers) because more of their customers use Microsoft's unlicensed products on these cloud services providers

- 5.6 Again, AWS notes that Microsoft has never put forward any evidence supporting that there is more unlicensed use of Microsoft's software by customers running Microsoft's productivity software on AWS or Google in comparison to other cloud services providers. As far as AWS is aware, such data does not exist.
- 5.7 Furthermore, Microsoft separately claimed that the majority (*i.e.*, about 75%) of cloud-computing applications are based on open-source solutions like Linux, and not on Microsoft products like Windows Server. Microsoft said this matters because for the vast majority of workloads that customers migrate to the cloud, the customer does not need any Microsoft software, and therefore Microsoft's licensing practices are irrelevant to those customer opportunities. Yet, this statement that customers do not need Microsoft software in the cloud clearly undermines their suggestion that customers are more likely to use Microsoft software on AWS and therefore more likely to use unlicensed Microsoft products on AWS it cannot both be true that customers are desperate to use Microsoft unlicensed products on AWS to such an extent that Microsoft felt compelled to impose these restrictions and that customers will soon never need to use Microsoft products on AWS again. Moreover, for the reasons explained in paragraph 2.3.1 of this response above, Linux is not a suitable alternative for Microsoft products.
- In addition, imposing more stringent restrictions on AWS and Google is not going to stop unlicensed use of Microsoft's software. Customers that were not using the software in accordance with the licensing requirements before the 2019 Changes will very likely continue to ignore the applicable licensing requirements. In fact, imposing arbitrary and unjustified licensing requirements on AWS (and other Listed Providers') customers is ultimately more likely to increase, rather than decrease, unlicensed use of Microsoft's software.
- 5.9 It is the customer's responsibility to ensure compliance with Microsoft's licensing requirements. Whenever customers have been audited by Microsoft and asked for AWS's assistance, customers generally say that it is far easier for them to demonstrate compliance on AWS than on other cloud services providers' environment because of the tools AWS provides (e.g., AWS License Manager).
- 5.10 Microsoft uses audit processes to manage under-licensed use of its products, and claimed that it would be potentially more straightforward for Microsoft to audit AWS and Google for the

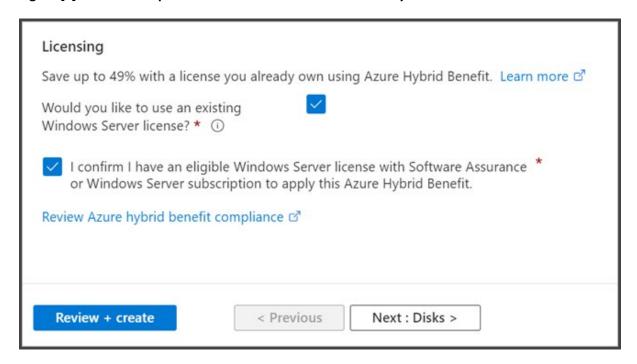
See <a href="https://aws.amazon.com/license-manager/">https://aws.amazon.com/license-manager/</a> for more information.

Licensing Working Paper, paragraph 3.49(a).

<sup>60</sup> Licensing Working Paper, paragraph 3.49(a).

software licences they are themselves required to pay for in advance for the services they provide to their customers than to audit individual end customers for the on-premises licences they claim to have brought to the cloud. Fet, it appears that Azure themselves seem to undertake minimal verification of BYOL software when customers bring Windows Server licenses to Azure using the Azure Hybrid Benefit. It would therefore be unfair for Microsoft to impose licensing restrictions based on the inability to audit customers (which is the end customer's responsibility), and considering that Azure does not have significant verification processes of its own. Effectively, as shown in the figure below, Azure customers are only required to check a box stating that they have an eligible license. It does therefore not track that Azure might expect a more rigorous compliance process for BYOL (which AWS in any case has no visibility over) than the one currently offered by Azure.

Figure [x]: Verification process for Windows Server on Azure Hybrid Benefit



5.11 In addition, AWS believes that it would be simple for Microsoft to develop technical solutions to enable it to track Microsoft software product license usage by its customers across other IT providers.<sup>63</sup> [%].

Microsoft claims that it imposed licensing restrictions to correct a loophole that AWS and Google were exploiting, *i.e.*, that AWS and Google were using customer outsourcing rights to create a public cloud service on dedicated hardware using on-premises licensing models and pricing<sup>64</sup>

5.12 Considering that the same Microsoft software can be run on non-Listed Providers without any applicable licensing restrictions (including on Azure), it is hardly credible that these restrictions

Licensing Working Paper, paragraph 7.51.

See <a href="https://learn.microsoft.com/en-us/windows-server/get-started/azure-hybrid-benefit?tabs=azure#what-qualifies-you-for-azure-hybrid-benefit">https://learn.microsoft.com/en-us/windows-server/get-started/azure-hybrid-benefit?tabs=azure#what-qualifies-you-for-azure-hybrid-benefit</a>.

<sup>&</sup>lt;sup>63</sup> [**≫**].

Licensing Working Paper, paragraph 2.10.

are necessary from a technical perspective to ensure this objective. Let there be no doubt — the aim of Microsoft's licensing restrictions is to inhibit the ability of competitors labelled as "Listed Providers" to offer their services and compete with Azure on the merits. If Microsoft was truly concerned about technical considerations, it would have simply removed the ability for any customer to BYOL their Microsoft license onto any cloud services providers' infrastructure.

### Microsoft claims that it is not more expensive to use BYOL Microsoft software on AWS than elsewhere 65

- 5.13 This is again a false statement which explicitly contradicts whole swathes of Microsoft's marketing material. Indeed, Microsoft itself highlights the significant discrepancies between Azure and other Listed Providers in its public marketing, stating that, for example, "[o]ther cloud service providers may claim to have similar savings to [Azure], but you'll need to repurchase your Windows Server licence on those clouds", 66 and "AWS is up to 5 times more expensive than Azure for Windows Server and SQL Server." 67 We encourage the CMA to question Microsoft and seek to clarify whether their marketing claims are false or their response to the Licensing Working Paper around pricing is incorrect.
- 5.14 [%].
- 5.15 [≫]. Given that these restrictions are arbitrary and simply imposed by the licensing terms rather than having a technical justification, AWS once again asks that these restrictions be removed so that customers are able to use Microsoft's productivity under the same conditions and terms as Azure customers.

Licensing Working Paper, paragraph 4.6 (a).

See <a href="https://azure.microsoft.com/en-us/pricing/azure-vs-aws/cost-savings/?activetab=pivot:windowsservertab">https://azure.microsoft.com/en-us/pricing/azure-vs-aws/cost-savings/?activetab=pivot:windowsservertab</a>.

See <a href="https://azure.microsoft.com/en-us/pricing/hybrid-benefit/#overview">https://azure.microsoft.com/en-us/pricing/hybrid-benefit/#overview</a>.

### 6. AWS'S VIEWS ON THE CMA'S PROPOSED REMEDIES

AWS is encouraged by the CMA's proposed remedies suggested in the Licensing Working Paper. Notwithstanding its views on each of the potential remedies set out below considered in light of the Hearing Follow-Ups, <sup>68</sup> [×]. <sup>69</sup> The concept of Listed Providers has no objective commercial justification other than to harm specific (named) rivals. Eliminating it is straightforward (simply striking the Listed Provider term from the licensing conditions) and does not involve any technical changes or monitoring by the CMA. [×].

# Remedy 1 – imposing non-discriminatory pricing of Microsoft software products, regardless of which cloud infrastructure they are hosted on

- [ $\times$ ]. As Microsoft's 2022 Changes and [ $\times$ ] show, implementing these changes does not require technical solutions but simply eliminating arbitrary and unfair contractual restrictions. However, aside from some potential drawbacks noted by the CMA (which we do not see as critical), this remedy proposal still has some limitations which should also be considered and addressed in whatever remedy package the CMA may end up adopting: [ $\times$ ].
- 6.3 The CMA outlines certain risks associated with a non-discriminatory pricing remedy, including (i) some customers facing higher prices (if Microsoft increased prices for non-Listed Providers to Listed Providers standards); (ii) changes to "wholesale"/SPLA prices potentially not trickling down to end customers; (iii) reduction of non-Listed Providers ability to compete with Listed Providers in case the difference in prices ceases to exist; and (iv) circumvention risks (e.g., via changes to contractual terms and pricing structures for Microsoft software products, or through directly discounting the price of cloud infrastructure services for Azure customers who purchase a package of cloud infrastructure services and Microsoft software products).<sup>70</sup>
- 6.4 [ $\times$ ].
- 6.5 [%].
- 6.6 [ $\times$ ].

# Remedy 2: Allowing customers to transfer previously purchased Microsoft software products to the cloud infrastructure of their choice without additional cost

- 6.7 This remedy would effectively remove our concerns around BYOL restrictions, which currently mean that customers are required to purchase new licenses to run on AWS despite already having existing on-prem Microsoft licenses. These restrictions are therefore of great importance for customers when deciding whether to move to AWS. In response to the CMA's query as to how this remedy can be implemented, it can be achieved through simple contractual changes by removing the offending terms in Microsoft's licensing conditions rather than complex technical arrangements.
- 6.8 The CMA outlines certain risks associated with a remedy that allows customers to BYOL to the provider of their choice at no additional cost, including (i) unlicensed use of Microsoft software by end users and audit costs to monitor that use; (ii) reduction of incentives for

<sup>&</sup>lt;sup>68</sup> [**≫**].

<sup>&</sup>lt;sup>69</sup> [**≫**].

Licensing Working Paper, paragraphs 7.37-7.40.

Microsoft to invest in its software products (due to less ability to monetise these); and (iii) circumvention risks  $[\times]$ .<sup>71</sup>

### Remedy 3 - Increased price transparency

6.9 If used in conjunction with pricing remedies (something which is admitted in the Licensing WP),<sup>72</sup> this remedy would help ensure that Microsoft cannot unfairly charge some customers more than others for its products. However, imposing this remedy alone would not resolve our concerns.

# Remedy 4 – Parity of Microsoft software products and product functionality for use on Azure and third-party cloud infrastructure

- 6.10 Removing the commercial restriction on the use of Microsoft software on Listed Providers and ensuring parity with restrictions applied when using Microsoft software on Azure would significantly reduce the level of harm currently caused by these restrictions.
- 6.11 [×].
- 6.13 With regard to concerns around the remedy increasing technical requirements or increasing the size of Microsoft's investments, given that the licensing restrictions are principally commercial and entirely artificial, Microsoft is already able to offer this remedy without making technical changes since Azure's customers already receive all the requested benefits. This remedy will therefore simply remove contractual and commercial restrictions and does not require significant changes from Microsoft on a technical level to be implemented.
- 6.14 This remedy will also not lead to a decrease in incentives for Microsoft to innovate. Even following implementation of the remedy, customers will still need to ultimately purchase Microsoft's productivity software either from Microsoft itself or a reseller if they want to use Microsoft's products. Given the importance of these products to customers, we can expect Microsoft to continue to be incentivised to innovate these products to keep up with customer demand. Ensuring that Microsoft does not unfairly charge a customer for the same product twice *i.e.*, once when it purchases the software on-premises and then again when it is forced to repurchase the same software for use on the cloud services provider of its choice, is not a reason to not implement a remedy, even if that might mean a short term decrease in the number of license sales.

### 7. **CONCLUSION**

In conclusion, Microsoft's licensing restrictions significantly harm customer choice. By refusing to make available Microsoft's products to customers of cloud services providers in the same

Licensing Working Paper, paragraphs 7.51-7.53.

Licensing Working Paper, paragraph 7.56.

Licensing Working Paper, paragraph 7.69-7.70.

way they are available on Azure, Microsoft is effectively driving customers to Azure and away from the IT provider of their choice. These restrictions are arbitrary and do not involve technical changes. AWS therefore encourages the CMA to implement remedies that effectively remove Microsoft's ability to restrict customers from being free to choose their preferred IT provider to run Microsoft's products.

#### Appendix 1 - Excerpts of relevant MSFT licensing changes

Relevant changes to Microsoft licensing terms introduced in the 2019 Changes and the 2022 Changes, respectively, are shown in red below. For clarity, these changes have been consolidated into a single Appendix in this submission. However, Microsoft embedded these changes in multiple separate documents (accessible from the links in the footnotes below) in a manner that appears deliberately complex and opaque.

#### 2019 Changes

#### **"8. Outsourcing Software Management**

Customer may install and use licensed copies of the software on Servers and other devices that are under the day-to-day management and control of third parties Authorized Outsourcers, provided all such Servers and other devices are and remain fully dedicated to Customer's use. Customer is responsible for all of the obligations under its volume licensing agreement regardless of the physical location of the hardware upon which the software is used. Except as expressly permitted here or elsewhere in these Product Terms, Customer is not permitted to install or use licensed copies of the software on Servers and other devices that are under the management or control of a third party."<sup>74</sup>

"Authorized Outsourcer means any third party service provider that is not a Listed Provider and is not using Listed Provider as a Data Center Provider as part of the outsourcing service."

"Listed Providers include entities identified by Microsoft at <a href="http://aka.ms/listedproviders">http://aka.ms/listedproviders</a>. Microsoft may identify additional Listed Providers at <a href="http://aka.ms/listedproviders">http://aka.ms/listedproviders</a> from time to time; however, if Customer is using an outsourcer at the time its Authorized Outsourcer status is terminated, then Customer may temporarily continue to use the same entity in its former Authorized Outsourcer capacity for one year from the date of that change in status."

**""Listed Providers"** is a term is defined in the <u>Microsoft Product Terms</u>. As of October 1, 2019, the Listed Providers include the following entities and their affiliates:

- Alibaba
- Amazon
- Google
- Microsoft

This designation affects all services running on a Listed Provider (for example, VMware Cloud on AWS). This list is subject to change and the current version is found at <a href="https://aka.ms/ListedProviders">https://aka.ms/ListedProviders</a>."75

This is Section 8 of the Universal License Terms (embedded in the Products Terms). See Archived Terms (pre-2022 Changes) - <a href="https://www.microsoft.com/licensing/docs/view/Product-Terms">https://www.microsoft.com/licensing/docs/view/Product-Terms</a>.

<sup>&</sup>lt;sup>75</sup> See https://www.microsoft.com/licensing/docs/view/Listed-Providers.

### 2022 Changes

### **"8- Outsourcing Software Management**

### **Outsourcing on Dedicated Devices**

Customer may install and use licensed copies of the software on Servers and other devices that are under the day-to-day management and control of Authorized Outsourcers, provided all such Servers and other devices are and remain fully dedicated to Customer's use.

#### **Flexible Virtualization Benefit**

Customers with subscription licenses or Licenses with active Software Assurance (including CALs) may use licensed copies of the software on devices, including shared Servers, that are under the day-to-day management and control of Authorized Outsourcers.

### **Outsourcing on Cloud Solution Provider-Hosters**

Customers with subscription licenses or Licenses with active Software Assurance (including CALs) may access their licensed copies of software that is provided by a Cloud Solution Provider-Hoster and installed on that partner's devices.

Except as expressly permitted here or elsewhere in these Product Terms, Customer is not permitted to install or use or access licensed copies of the software on Servers and other devices that are under the management or control of a third party. Customer is responsible for all of the obligations under its volume licensing agreement regardless of the physical location of the hardware upon which the software is used."<sup>76</sup>

"Authorized Outsourcer means any third party service provider that is not a Listed Provider and is not using Listed Provider as a Data Center Provider as part of the outsourcing service."

"Listed Providers include entities identified by Microsoft at <a href="http://aka.ms/listedproviders">http://aka.ms/listedproviders</a>. Microsoft may identify additional Listed Providers at <a href="http://aka.ms/listedproviders">http://aka.ms/listedproviders</a> from time to time; however, if Customer is using an outsourcer at the time its Authorized Outsourcer status is terminated, then Customer may temporarily continue to use the same entity in its former Authorized Outsourcer capacity for one year from the date of that change in status."

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The Universal License Terms (embedded in the Products Terms). See <a href="https://www.microsoft.com/licensing/terms/">https://www.microsoft.com/licensing/terms/</a> and the Archived Terms: <a href="https://www.microsoft.com/licensing/docs/view/Product-Terms">https://www.microsoft.com/licensing/docs/view/Product-Terms</a>.

See <a href="https://www.microsoft.com/licensing/docs/view/Listed-Providers">https://www.microsoft.com/licensing/docs/view/Listed-Providers</a>.

**Appendix 2 - [※**].