

CMA's Issues Statement

I. Introduction.

Oracle welcomes Ofcom's final report and the referral of the cloud services market to the CMA for further investigation. We are grateful for the opportunity to comment on the issue statement, and we look forward to assisting the CMA as its investigation matures. As Ofcom and the CMA recognize, cloud computing is a critical and growing sector of the UK economy. It is also highly technical and can seem impervious to simple explanation. We endeavor to demystify and simplify wherever possible, anticipating the industry's tendency to overwhelm with jargon and complexity.

II. Not all Cloud Computing is a Commodity.

What may not be immediately obvious is that the engineering infrastructure of each cloud service provider ("CSP") is designed to accomplish different objectives. Not all of the hundreds of cloud services of each CSP are necessarily interchangeable or commoditized. Setting aside jargon, *engineering* is the fundamental differentiator between CSPs' offerings. And it is because of these fundamental differences in engineering that customers have demanded, and some CSPs have facilitated, a multicloud strategy.

Architectural engineering fundamentally differentiates some of the CSPs' offerings. Oracle, like some CSPs, has facilitated a multi-cloud strategy to help customers take advantage of each CSPs' architectural innovations, even when that innovation creates fundamental differences in engineering. Architectural innovation targets the entire stack of technology used to deliver cloud services and can result in better performance, lower costs, higher security, and a smaller environmental footprint for similar services. For example, CSPs that can offer a full range of services in smaller spaces also require less power and cooling. Any one of these competing concerns can be the dispositive innovation for customers considering a move to the cloud.

Uber turned to Oracle Cloud Infrastructure (OCI) because "Oracle provides an ideal combination of price, performance, flexibility, and security," and because the company



"needed a cloud partner that shares a relentless focus on innovation." OCI is differentiated from other CSPs in part because it optimizes for speed and performance. Other customer success stories reiterate OCI's differentiated offerings: Zoom was able to smoothly scale to meet its exponentially increased need for live video streaming using cloud native services such as OCI Functions.²

III. The Promise of Multi-Cloud: Competition.

A multi-cloud strategy means customers can strategically select the best cloud service provider for each and every workload.³ Viewed properly – from the customer's perspective – a multi-cloud strategy delivers *both* better results *and* cost savings by allowing the customer to most efficiently allocate workloads across available infrastructure. But multi-cloud can only be pursued if the customer is empowered to choose, and – once initially chosen – able to adjust accordingly without encountering artificial, anticompetitive barriers to switching. A multi-cloud strategy is designed to benefit customers, developers, and system integrators alike.

For example, OCI's multi-cloud services program is building interconnected cloud solutions that enable customers of third-party cloud providers to seamlessly consume Oracle's differentiated services that run on OCI. Services that facilitate customers' use of multiple CSPs include an integrated user experience, a native provisioning experience, federated identity, high-speed and low-latency connections between clouds, and consolidated observability metrics and logging.

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¹ Oracle, *Uber Selects Oracle Cloud Infrastructure* (Feb. 13, 2023), https://www.oracle.com/news/announcement/uber-selects-oracle-cloud-infrastructure-2023-02-13/.

² Oracle, Zoom selects Oracle as a cloud infrastructure provider for its core online meeting service (June 19, 2020), https://www.oracle.com/customers/zoom/; Oracle, Cloud Functions, https://www.oracle.com/cloud/cloud-native/functions/.

³ Multi-cloud is not synonymous with switching; switching involves moving workloads between different cloud service providers. Switching from one CSP to another does not require a customer to maintain a multi-cloud strategy: for example, a customer could decide to move a workload from AWS to OCI and cease using AWS altogether. This would trigger high switching costs (see Part IV, infra, regarding egress fees) but would not constitute a multi-cloud strategy. Conversely, a customer could onboard AWS, OCI, and Azure, and determine that different workloads should be allocated to each CSP. If no changes need to be made to the initial allocation, this would trigger no switching costs (and also would constitute a multi-cloud strategy).



a. Multi-Cloud Facilitates Price Competition.

In cloud computing, *time is money*: increases in efficiency can lower costs. As a result, there will be efficiencies in verticals between service offerings. OCI can and does optimize for the customer between its different services: a customer may be able to realize lower cost or higher quality output from engineering efficiencies designed into the combined set of hardware, networking, and software that composes a given service.

For example, Oracle's cloud architecture differs in many ways to optimize for processing speed and network performance, ultimately to the financial benefit of customers by spending less total time processing a workload. Alternatively, the customer may have workloads that require the greatest level of performance possible to complete tasks within a short deadline.

b. Multi-Cloud Also Facilitates Innovation.

Oracle provides third-party rights to run its software on AWS and Azure, as well as offering MySQL Heatwave services on AWS and Azure. This strategy by Oracle is one of the reasons why a UK cloud company might charge different rates for licenses across different cloud infrastructure systems.⁴ A customer may find that support costs are lower, or performance is better, when deploying a solution on a different cloud architecture. They may also find that the engineering efficiencies are outweighed by other costs, like egress fees.

Most prominently, Oracle and Microsoft have deepened the partnership between OCI and Azure to benefit our customers.⁵ The partnership and interconnect between OCI and Azure is far more than a handshake agreement: each company invested significant engineering resources to integrate OCI and Azure products and services for the benefit of our customers.

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⁴ We also note that CISPE, the trade organization from which this complaint appears to have originated, was founded by – and continues to be steered by – AWS (a direct competitor). See Emily Birnbaum, Bloomberg, How Amazon Is Going After Microsoft's Cloud Computing Ambitions (November 16, 2023, 9:49am EST), https://www.bloomberg.com/news/articles/2023-11-16/amazon-amzn-microsoft-msft-fight-for-cloud-computing-government-contracts ("Amazon is the driving force behind a trio of advocacy groups [CISPE, the Coalition for Fair Software Licensing, and the Alliance for Digital Innovation] working to thwart Microsoft's growing ambition to become a major cloud computing contractor for governments").

⁵ See generally Steven Rosenbush, WSJ, *Microsoft, Oracle Deepen Cloud Integration*, https://www.wsj.com/articles/microsoft-oracle-deepen-cloud-integration-5a627473 (Sept. 14, 2023).



In addition to engineering resources, Oracle is physically co-locating Oracle hardware in Azure data centers – a service called Oracle Database@Azure. By co-locating within Microsoft datacenters, customers will experience lower latency, integrated access to Oracle Database services on OCI, and the ability to view combined metrics on Azure. This allows customers to rapidly select and integrate the services they require from the Azure catalogue of AI and application services with OCI's database services. These business and technical innovations between Oracle and Microsoft create a true multicloud solution where customers can run their workloads where their needs are best met. Within OCI and Azure, our multi-cloud strategy also helps our customers mitigate ingress/egress fees.⁶

c. True Competition in Multi-Cloud Requires Data Mobility.

Many customers have multiple types of workloads that differ in priority and complexity. These differing workloads may be best suited to run on Azure, or AWS, or Google Cloud, or any other CSP. Once a customer uses a service unique to a CSP, it may be necessary to re-develop their solution before they can switch the workload to another CSP. Rearchitecture is necessary in part because CSPs compete against each other based on the innovations they develop that may be more or less suited to specific types of workloads. In a competitive market, customers should be able to make choices about the cloud services they prefer to use based on the needs of their specific workloads.

To illustrate: at Oracle, if a customer has a set of underlying configuration files (often referred to as Infrastructure as Code ("IaC") and wants to migrate from OCI they can reuse the same approach to redeploy on another CSP. However, if the customer has a workload that depends on specific capabilities of a unique Oracle service – for example the Exadata Cloud Service – they will need to first determine whether the workload can be adequately serviced by offerings from other CSPs. One or more unique capabilities provided by Oracle may not be directly matched by competing services, requiring adjustments (that may increase costs or impact performance) to accomplish the desired task.

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⁶ OCI, Oracle Database Service for Azure, https://www.oracle.com/cloud/azure/oracle-database-for-azure/ ("There are no charges for Oracle Interconnect for Microsoft Azure ports or data ingress/egress over the Interconnect. You will be billed normally for consumption of Oracle Database services, such as Autonomous Database.").



IV. Data Mobility Fees Should Be Zero.

Cloud service providers recognize that customers' key asset is their data. CSPs compete to offer services that permit customers to do more with their data, but the data itself remains the property of the customer. It is logical to assume, then, that customers should be readily able to move their data among various cloud services and providers. This is often not the case.

Oracle recognizes that the value we provide to customers is based on our service offerings, not our fees for moving a customer's data. We have an industry-leading pricing model for data transfers into and out of our cloud and charge nominal cost recovery fees in areas where real market conditions vary (i.e., to account for different regional connectivity costs).

V. Committed Spend.

The Issues Statement also includes a theory of harm regarding committed spend discounts. The CMA focuses on "whether, and the extent to which, the way [committed spend discounts] are structured acts as a barrier to entry and expansion among cloud service providers in a way that leads to longer-term harm to competition."⁷

"Committed spend discounts" are, at bottom, volume discounts. Volume discounts are standard practice in the industry and are generally unproblematic for companies like Oracle. As Ofcom recognized, "[a]n important feature of the discount structure is that the more a customer spends on the provider's cloud services, the greater the discount received." Arguably more important, however, is the contract's duration: an incumbent market participant like AWS (which may not have earned that status through competition on the merits) can effectively lock in customers to many-year contracts by leveraging the offer of a significant discount. This is particularly prevalent in government contracts, where lock-in is further exacerbated by restrictions on government spending (government agencies may not be permitted by law to take a short-term loss on switching costs to a new CSP in order to realize a long-term gain on price and/or performance).

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⁷ Issues Statement, para. 31.

⁸ Cloud services market study final report (ofcom.org.uk), para. 1.26.



VI. Remedies: Transparency is Insufficient.

While it is too early to opine on remedies, we note that making pricing more "transparent" is necessary but, on its own, insufficient. For example, Oracle offers a product comparison function on our website, where a customer can compare their Oracle products to their AWS, Microsoft, and Google (near-) equivalents. But in practice, a customer cannot ascertain their actual spend for products and services offered by competitors until they start running workloads. Many customers have seen their costs increase well beyond initial predictions, and struggle to truly understand all the implications of complex service interactions and their impact on overall spend.

Further, AWS and Azure charge different prices for services in different regions (contra Oracle's uniform pricing strategy), and many of AWS's services are proprietary and highly customized, making it prohibitively expensive to re-architect a solution to move to another CSP (even if that solution would be cheaper and more performant on another CSP).

This illustrates why – when the CMA suggests that to address concerns around egress fees it could, *inter alia*, "increase[e] the visibility and understanding of egress fees for potential customers" – it would be insufficient for a customer if AWS transparently advertised its choice to stop charging "egress fees," and simply increase other costs under new terminology to recoup the same extractive profits.⁹

VII. Conclusion.

Oracle remains grateful for Ofcom's referral to the CMA and ready to assist in its ongoing investigation.

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⁹ AWS has already begun to execute this strategy elsewhere. In its response to the US Federal Trade Commission's Cloud Computing RFI, AWS argued that it is a "myth" that AWS charges egress fees at all. As AWS wrote: "AWS does not charge fees for egress—that is, for switching data to another IT provider. **AWS charges a service fee** for using its network to transfer data within or out of AWS regardless of the reason for the transfer or whether it is destined for a competing IT provider. ... **AWS's fees for data transfer reflect the cost of building and maintaining AWS's extensive, reliable, and secure private network.**" Comment from Amazon Web Services, Inc., FTC-2023-0028-0084, at 14-15 (June 21, 2023), https://www.regulations.gov/comment/FTC-2023-0028-0084.