



# Vodafone Response to Ofcom consultation

## Cloud services market study Interim Report

May 2023



### Cloud is an important market

1. Vodafone is pleased to follow up its initial submissions to Ofcom's call for inputs and its formal information request, with this submission on the interim findings of Ofcom's Cloud market study. Vodafone has a unique market vantage point. We are a user of Cloud services for our own business operations across our IT, digital and network functions. We are also a leader in IoT and Edge computing. Our Enterprise retail business unit offers professional services covering design, procurement, and management of Cloud solutions to enterprise customers which complement our fixed enterprise and mobile connectivity solutions. Vodafone is naturally evolving into becoming an active player in the future digital and cloud-edge infrastructure ecosystem.
2. Ofcom's study confirms the important role that Cloud based hosting and applications have in the UK economy. Cloud-based services facilitate previously unfathomable, speeds for the deployment of applications and enable fluid adjustments to their scale. This speed and convenience sits alongside an economically attractive approach to payment for the services. It is therefore important that this market functions well, ensuring consumers can freely switch between cloud services, sustaining competition and keeping prices down.
3. US Hyperscalers currently hold 71% market share. Our own research conducted with Cap Gemini shows that businesses strongly value providers that offer choice and flexibility through enhanced portability, and interoperability. Customers are in fact prepared to pay a premium of up to 10% for offers that meet their requirements. The existing self-regulatory approach to cloud portability has not been effective. Vodafone/Kyndrl is breaking new ground by innovating around a new approach to enable customers to switch. We can learn a great deal from telecoms regulation in this respect, where interoperability, portability and ease of supplier switching are all grounded into the regulatory framework.

### Skills are necessary to support a digital society

4. In an increasingly active digital society, support is needed to help consumers and businesses embrace connectivity advancements (FTTP, 4G and 5G) and cloud-based services. These, being key resources to help underpin a highly technical, competent and productive workforce. Companies need to evolve their approach to technology and skills to ensure their staff and business's benefit. In 2021 we announced that we would require 7000 new software engineers to be added to our European wide workforce by 2025<sup>1</sup>. We plan to achieve this multi-year plan through recruitment, reskilling existing employees and insourcing.
5. The UK Govt has recognised the skills short fall across the economy and has set out steps to address the problem via the Digital Skills Council<sup>2</sup>. Respondents to Ofcom's study research called out their skills capability gaps as barriers to deploying cloud. Ofcom identifies that the Cloud value chain includes the Professional services segment which companies lacking inhouse skills can turn to. Our professional services have been developed to address the skills shortfall that enterprises face. We hope that this study and the growing awareness of the topic will help to highlight to more enterprises that commercial, third-party solutions are available to assist them with the deployment and optimisation of their Cloud solutions.

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<sup>1</sup> <https://www.vodafone.com/news/technology-news/7000-new-software-engineers>

<sup>2</sup> New Digital Strategy to make UK a global tech superpower - GOV.UK ([www.gov.uk](http://www.gov.uk))



### Users must be free to choose quality and bespoke their solutions

6. As a user of Cloud services, we want to be able to configure a service solution that is of optimal quality for our specific needs. The services we ultimately offer our end customers will depend on the quality of our input services and their costs. The situation is same for Enterprises who are customers of our professional Cloud services. Increasingly next generation applications such as V2X (vehicle to everything), robotics, drone control, augmented reality, will all require distributed cloud computing capabilities to be highly dispersed and close to the end users, rather than the traditional Hyperscaler Data Centres that are highly centralised.
7. These scenarios also require mobility and therefore the workloads need to follow the end points across the networks and ideally hand over between different MECs in the same way that we as mobile operators provide seamless handover from one base station to another. Therefore, better mobility between clouds will ultimately also make this innovation easier in the future and provide a better end user experience.
8. Ofcom identifies the level of egress as a barrier to the use of multi-Cloud applications and consequently the trade-off that users make between service cost and the level of quality of service of the solution deployed. Ofcom also identifies egress charges as a barrier to end of contract switching, adding to overall switching costs. A commercial / voluntary solution to address the level of egress charges, as yet, has not been forthcoming. We share Ofcom's conclusions around the implications of doing nothing. We consider the following options should be considered:
  - Continuation of the current method of service provision –
    - with the reduction of egress fees to their cost.
  - A change to the current methods of service provision -
    - In the telco market interconnection rules have made transit services a competitive marketplace. Facilitating alternative competition in the provision of data egress transit could be an option to transition charges to cost via competition.
    - Data egress is required to access application outside of one Cloud ecosystem. An alternative would be to remove the need to transfer the data and enabling software to run in the existing Cloud. To date suppliers have been unwilling to certify their software operation in another domain
9. Ofcom identifies that interoperability and portability would increase the levels of competition in the market. We agree that interoperability and portability capabilities are positive market features to be encouraged and help to foster innovation from richer ecosystem in terms of edge-computing providers and independent ISV's<sup>3</sup>. There is a balancing act required that establishes a fair framework between Hyperscalers and users. Hyperscalers must be able to innovate, be rewarded for their innovation while users must not be unfairly locked in. Users also have a responsibility to undertake the correct approaches when deploying their solutions in order to facilitate future portability and interoperability. At a minimum we agree there should be:
  - A mandatory code for the interoperability requirements for basic IaaS capabilities.
  - Promotion of technology standards to facilitate data portability, switching between service providers.

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<sup>3</sup> We note the EU Data Act proposes functional equivalence of IAAS services.



### Restrictive/unfair contractual terms hamper competition

10. Ofcom identifies the role of discounts in the Cloud market including the benefits of the discounts to both the users and supplier in achieving cost efficiencies. We support Ofcom's aim ensuring the positive features of discounts are retained while ensuring users are able to purchase the services and service quality unencumbered by any restrictive or unfair contractual terms.

### How Vodafone can help Enterprises deploy Cloud

11. We would like to take the opportunity to set out before Ofcom how our professional services offer a commercial solution to enterprises identifying that they lack the inhouse skill to confidently and competently procure Cloud services. Ofcom could play more immediate role in the market by summarising in a short guide the steps that users can take to ensure that they are well informed, avoid lock in and build a solution with prospective migration in mind.
12. We are a single trusted partner with 10Million global enterprise customers placing their faith in us to combine our leading connectivity, security and multi-Cloud services and deliver on their behalf. We ensure companies get the best of the Cloud via the right mix of services and experiences. We do this by providing expert services from advisory services to help customers plan their Cloud deployment, implementation/migration, management and skills training. Our services include:
  - a. A Cloud readiness assessment. This identifies a companies baseline plus the steps needed to migrate IT and get the business smoothly up and running in the cloud.
  - b. Application discovery and assessments. We will assess applications with you and get a target state definition and determine a migration plan to achieve the goal design.
  - c. Design and configuration of Cloud environments. We will plan the fully configured development, test and productions Cloud environment.
  - d. Application modernisation. We will plan the modernisation steps required to ensure successful migration to the Cloud or container platform.
  - e. Could security strategy assessment. We will assess the current security position and the actionable steps to safeguard workloads in the cloud.
  - f. X-force offensive security testing. We will assess the Cloud environment for security vulnerabilities with our suite of security testing solutions.
  - g. X-force incident response and intelligence services. We will proactively prepare for security incidents or seek recommendations on restoring service during a major security incident via this subscription service.
  - h. Managed security information and event management. We identify and respond to treats with our treat management system.
  - i. Vulnerability management. We identify potential security vulnerabilities and exposures within your network through our fully managed threat and weakness scanning solution.
  - j. Cloud migration. We enable confident migration with care taken of every detail, speeding up and de-risking deployment for cloud, connectivity and security solutions.
  - k. Email and data migration. We migrate email and file data to the Microsoft Cloud with our bespoke end to end service.
  - l. Public Cloud. A broad set of Azure infrastructure services on Azure are delivered as an on demand utility, available in seconds with pays as you go pricing. We offer a broad catalogue of pay as you go AWS services with simple billing.



- m. Vodafone Business Multi Cloud Platform. We provide a single platform that brings together multiple clouds, simplifies management and gives companies the control needed to get the most from their Cloud investment.
- n. Integrated Managed Infrastructure. For AWS and Azure we offer a range of managed infrastructure services.
- o. Azure Managed Service. We offer proactive management, control, monitoring and resolution of networks and services.
- p. Microsoft 365 Endpoint managed service. We offer a managed, secure, working and collaboration environment.
- q. User Adoption and training services. We enable companies to obtain the necessary skills to maximise product capabilities and productivity via tailored engagement and training services.
- r. Cloud optimisation service. We enable companies to optimise Cloud investments and ensure applications run better in the Azure cloud.
- s. Hybrid Services. We enable customers to place applications in its ideal environment to achieve the best quality of service.

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