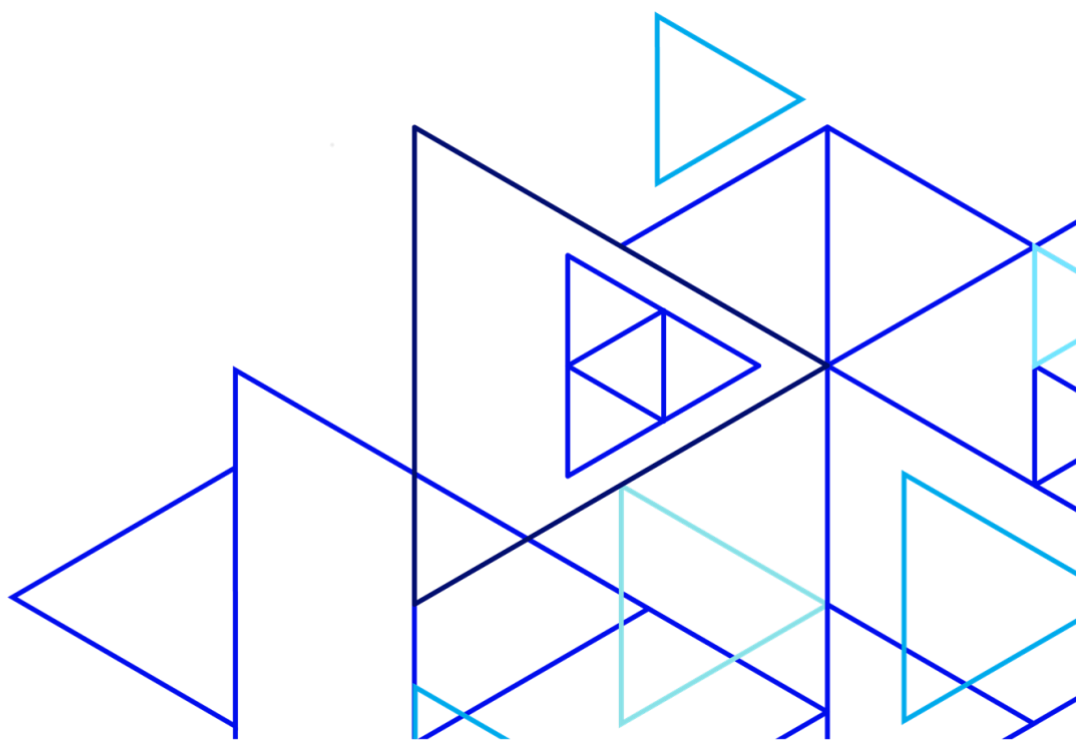


Response to the CNMC public consultation on cloud services



1. Participant's information

OVHcloud is a global player and the leading European cloud provider operating over 450,000 servers within 43 datacenters across 4 continents to reach 1,6 million customers in over 140 countries. Founded in France in 1999 by Octave Klaba and led by CEO Michel Paulin, OVHcloud offers a suite of solutions designed to meet multi-cloud and hybrid cloud strategies such as hosted private cloud, public cloud, web cloud or bare metal cloud. OVHcloud, an open, reliable and trusted cloud provider, proposes secured data cloud solutions for clients. It offers an optimal price/performance ratio thanks to its in-house technology. OVHcloud supports the development of a dynamic and sustainable cloud services market in order to offer viable alternatives to hyperscalers such as Amazon Web Services (“AWS”), Microsoft Azure and Google Cloud.

OVHcloud also offers domain name registration, telephony services and internet access to customers.

OVHcloud is based on an integrated model, guaranteeing total control over its value chain, from the design of its servers to the construction and management of its data centers, including the orchestration of its fiber-optic network. This unique approach enables OVHcloud to independently cover all the uses of its customers so that they can seize the benefits of an environmentally conscious model with a frugal use of resources and a carbon footprint reaching the best ratios in the industry.

OVHcloud's philosophy is to provide SMART cloud:

- **Simple.** First, OVHcloud endeavours to confirm that its solutions are able to be implemented quickly and easily, and that they are time saving for its customers;
- **Multi-local.** OVHcloud believes that product and offering solutions should be local to everyone, everywhere. It also works to adapt its offerings to the needs, wants and constraints of customers with respect to data safety and local regulations;
- **Accessible.** OVHcloud targets solutions that are affordable and accessible to a wide range of customers. It also focuses on a transparent pricing model;
- **Reversible.** To increase flexibility, OVHcloud assesses whether its innovations are reversible, open and interoperable to ensure that it is not limiting its direction in the future. It also provides robust and reliable technologies and ensures that customers are not “locked in” and do not pay for bandwidth; and
- **Transparent.** Lastly, OVHcloud treats all of its customers equally. It offers its solutions to every customer and is committed to clarity in all of its customer communications and to predictable pricing.

These principles guide OVHcloud in the design of its IaaS and PaaS solutions and are at the centre of its architecture. They are central in OVHcloud's identity and are a truly differentiation parameter in comparison with alternative providers.

2. Assessment of the market's functioning

1. In your opinion, what will be the main factors that will drive the growth of the sector in the coming years? (max. 300 words)

The growth of the cloud market in the next few years will be mainly driven by different innovations such as generative artificial intelligence, the use of graphics processing units (for gaming or video), containerization (standardizing codes for greater data portability and/or hybrid and multi-cloud strategies), hyperconvergence (bringing storage and processing together in one place), and the development of edge computing (bringing computing and storage closer to the user for lower latency, lower bandwidth cost, more reliable connectivity and better security)¹.

Among the innovations cited in the Hyper Cycle, OVHcloud is investing in the OVHcloud Marketplace, AI cloud offerings, multi-cloud development, sovereign cloud, quantum computing (for which we support startups as part of our Startup Program), and edge computing.

2. How would you classify the different types of agents/operators involved in the cloud market value chain? (max.300 words)

The different types of agents/operators involved in the cloud market value chain are:

- Datacenter operators which are limited to hosting operations. These services do not allow on-demand services;
- Cloud service providers which offer comprehensive solutions that include hosting in a datacenter, servers, and the technical layer in order to provide resources to the customers concerned. This category contains operators that are very different in size and regarding their activities. In this regard, OVHcloud emphasizes that its business is identical to the one of hyperscalers. The main differences with the latter lie in the diversification of activities (e-commerce platforms, online advertising, gaming, software licenses, etc.) and financing capacity. While hyperscalers are global groups conglomerates with considerable resources, OVHcloud defines itself as a "pure cloud player", specializing in the cloud.
- Intermediaries or integrators – category mentioned in question 10 - that come in very early to define customers' cloud needs and advice customers.

¹ The Hype Cycle published annually by Gartner (2023) makes it possible to follow the different innovations of the sector and their degree of maturity.

3. Would you highlight any particular feature of the cloud market in Spain as compared to other European countries? How do you assess the overall competitive situation of the cloud market in Spain? Are there any particularly significant trends? (max. 300 words)

The cloud is fundamentally conceived as a global industry. Since access to the cloud is only conditional on an internet connection, users in all regions of the world have access to these resources. The innovations brought by the different players in the sector are available in the majority of countries in the world.

However, some regulations impose constraints on cloud service providers or their users, and thus create regional dynamics. This is particularly the case at European level. As the European cloud market is subject to standards aimed at protecting user data, dealing with cybersecurity threats, this has created market dynamics, leading to the creation of new offerings and the emergence of new players.

4. In your opinion, what are the main elements that determine the dynamics of competition among cloud service providers? In your opinion, which other markets can affect the competitive dynamics in the provision of cloud services? (max 300 words)

It appears that the cloud market is intrinsically linked to two other markets: on the one hand, the market of softwares and on the other hand, the market of artificial intelligence.

OVHcloud considers that some cloud providers with popular software products or SaaS services make little or no important software available to customers in another cloud environment or do so only on the basis of higher costs or license fees. Such position is shared by various competition authorities, including in particular Netherlands' ACM². There is a significant risk that these practices will lead to a strong market consolidation around the hyperscalers, who are also dominant in the software layer. Indeed, with most of the cloud markets' growth expected to come from the migration from on-premise to cloud services, these practices will lead captive users to be strongly encouraged to migrate into the cloud service of their software provider: the software will be cheaper and more functional than through a third party cloud provider.

Building, training, deploying and distributing any AI system requires significant resources, including graphic processing units (GPUs) that may be directly available for purchase (which is expensive and complex) or through cloud providers that give access to GPUs through their cloud services. This needs to go through cloud providers will increase competition to capture the market of AI users. Cloud hyperscalers will continue to use their superior means to capture this market, notably through the allocation of cloud credits. On this point, in anticipation of the application of the Data Act, French law has planned to limit the duration of cloud credits.

² <https://www.acm.nl/system/files/documents/public-market-study-cloud-services.pdf>

- 5. In your opinion, when contracting cloud services from an operator, how do the main provider's offers differ from each other? (max. 300 words)**

Non applicable

- 6. When contracting cloud services from an operator, describe in order of importance the factors that, in your opinion, are the main determinants of the contracting decision, such as, among others, price, technical quality of the service, the provider's portfolio of services, security, transparency of the contract, nationality of the provider, previous relationship with the same provider, previous knowledge by the staff, etc. (max 300 words)**

Non applicable

- 7. When contracting cloud services from an operator, assess the extent to which contract terms and conditions are negotiable (max. 300 words)**

Non applicable

- 8. Indicate what difficulties may arise, at the time of contracting a provider's cloud services, to anticipate the final cost of use of the contracted service (max. 300 words)**

Non applicable

- 9. Assess the transparency of contract terms and conditions and indicate whether changes in contract terms and conditions are common (max. 300 words)**

Non applicable

- 10. In migrating to the cloud, explain the role of the integrator or intermediary, and its relevance to the competitive dynamics of the market (max. 300 words).**

A migration project entails major costs and as the migration process is technical in nature and requires specific resources and skills, companies will, in many cases, need to enlist the services of an information technology consulting company called 'integrator' or 'intermediary'.

Aware of the massive, and therefore dissuasive, financial cost that this represents for the user, the hyperscalers offer support for the fees charged by these consulting companies through their partnership with these last. They also offer discounts, where applicable, to new customers on their arrival in their services (including via the granting of cloud credits). In return, these consulting companies are committed to carrying out a certain number of customer migrations to the hyperscalers services. The training of consulting companies' staff in the specific services of a hyperscaler can also be provided. These agreements, between companies with a dominant position in the cloud market and companies with a strong presence in IT consulting, lead to a strengthening of each other's positions, and a de facto foreclosure of alternative providers from many cloud migration projects.

Alternative suppliers to hyperscalers do not benefit from a partnership agreement of the same magnitude. The technical barriers to migration have created a "closed-circle" economy that in turn encourages migration to hyperscalers' services, reinforcing the market lock-in. Alternative suppliers are penalized in two ways : on one hand, technical

locks prevent a simple migration to their services; on the other hand, solutions offered by third parties to remove these migration locks are monopolized by hyperscalers.

According to OVHcloud, this is necessary to lift the technical barriers to migration currently in place in the market. An obligation of transparency of the partnership contracts between hyperscalers and consulting companies, as well as a strict framework for the amounts paid by the hyperscalers to the last, would also be interesting to consider.

11. For software development companies offering independent cloud-based software applications, consider which are the main channels to reach the end customer and the factors on which the choice of the chosen channel(s) depends. When offering independent cloud-based software applications, consider whether it is possible to do so in more than one marketplace from a vertically integrated provider (max. 300 words).

Non applicable

12. Assess the conditions required to intermediaries to be able to sell the products of one or more cloud service providers, and whether in your opinion they affect the competitiveness of the final solution offered by the intermediary in relation to other sales channels (max. 300 words).

Non applicable

3. Barriers to competition in the cloud sector

In a preliminary analysis, the CNMC has identified several challenges from the point of view of competition in the cloud sector. The aim of this section is to identify and assess possible barriers to competition to determine whether there is room for improvement in terms of competition and efficiency.

13. Assess whether there are significant barriers to entry into the cloud services or cloud infrastructure market. If so, indicate and describe what type of barriers (e.g., regulatory, investment size, availability of qualified staff, other) and indicate which services or cloud layer (IaaS, PaaS, SaaS) are affected by each barrier (max. 300 words).

There are several barriers to entry for the provision of cloud products and/or services, among which:

1. **Financing capacities.** The provision of cloud services requires significant capital to finance the considerable investments for the development of *data centers*, a sufficient product portfolio, the recruitment of people with rare and specialized skills, research and innovation, etc.

2. **Unequal access to components in times of shortage.** In a context of shortage of IT components, suppliers are favoring customers with the highest purchase volumes, i.e. *hyperscalers*, to the detriment of alternative providers. It is therefore necessary to have a critical size in order to be able to develop in the *cloud market*.
3. **Land access.** Some customers, particularly e-commerce organizations or banks, require the shortest possible latency time for their information systems, which means that data centers must be positioned as close as possible to the premises of these companies and their customers. In regions with a high concentration of residents and businesses, the land reserve for installing new data centers is limited. Limited access to land is therefore a significant barrier to entry.
4. **Customers access.** The establishment of a sufficiently large customer base to compensate the initial investments necessary to the development of cloud services can be difficult. While some companies can leverage on their activities on adjacent markets, developing this initial customer base can represent a significant barrier to entry for smaller providers, moreover in a highly concentrated market.

These barriers – which mainly apply to the IaaS and PaaS layers - tend to favor the development bigger of cloud providers leveraging their superior financial means and adjacent activities, namely the hyperscalers. This situation is reinforced by a series of harmful practices implemented by such hyperscalers reinforcing barriers to entry into the market, either by preventing alternative providers from competing with them for their existing customers (lock-in practices) or for users migrating to the cloud for the first time (e.g. abuse of market powers in adjacent markets through practices such as tied selling, bundling and self-preferencing).

14. In your opinion, assess which cloud layers (IaaS, PaaS, SaaS) present the greatest competitive challenges and explain why (max. 300 words).

The greatest competitive challenges can be found within the IaaS and PaaS layers, whereas the SaaS layer appears to benefit from stronger competitive dynamics.

The IaaS and PaaS layers are suffering from very high market concentration, with 72% of the European market controlled by 3 non-European providers, at the expense of alternative European providers. Indeed, although the European cloud market has been multiplied by 5 between 2017 and 2022, the market share of European cloud providers has been divided by 2 over the same period, leading to this market concentration.

As described in answer to Q13, this situation can be explained by the existing barriers to entry to such markets, and particularly the important financing capacities necessary, but also through a series of harmful practices implemented by the dominant players to reinforce their positions.

These practices, which will be further described in answers to the next questions, have been highlighted by several competition authorities within the EU (e.g. Netherlands, France) and abroad (e.g. United Kingdom, Japan, South Korea, USA). They have for effect

to either lock cloud users into the services of hyperscalers, or to allow such players to unfairly capture users migrating to the cloud for the first time, at the expense of such users' freedom of choice. Competition authorities over the world have shared the concern that, without swift action, these practices could lead to even further deterioration of competition within the cloud market in years to come.

15. For companies already present in the cloud market, what are the main obstacles to their activity and to competition in the sector? (max. 300 words).

These main obstacles rely on a series of harmful practices implemented by certain providers to consolidate their positions:

- **Lock in practices:** barriers implemented by providers to prevent cloud users from leaving their services or to use multicloud services. These barriers can be:
 - o Technical: interoperability / portability restrictions.
 - o Financial: massive egress fees charged by hyperscalers to users wishing to leave their services.
 - o Commercial: by conditioning tariff discounts to very high expenditure commitments or long commitment periods.
 - o Legal: long term contracts with no early exit clauses for legitimate reason and no provision for reversibility, data portability, interoperability, leaving customers with no choice but to stay with their provider.
- **Abuses of market power:** Hyperscalers are able to leverage their strong position within one layer of the cloud (e.g. SaaS), or in the software market, into a dominant one within different layers of the cloud (e.g. IaaS). This can take the form of:
 - o Tied selling: subjecting the provision of one core-business supply contract to the condition of the customer migrating its data onto the provider's public cloud.
 - o Software bundling: horizontal and vertical software bundle, allowing hyperscalers to offer services (software and cloud) at a lower price than their competitors.
 - o Self-preferencing: (i) preventing the customer from using a software proposed by the cloud provider in the cloud service of a competitor, or (ii) raising license costs when the software is used in another cloud environment and (iii) degrading the software's functionality when used in third-party cloud provider.

Each of these practices have for effect to limit the capacity of alternative providers to compete effectively in the cloud market, either by locking customers into the services of already dominant providers, or by allowing such providers to unfairly capture ones migrating to the cloud for the first time.

Cloud migration and change of provider

16. Assess what technical or economic difficulties exist for migrating to the cloud. Indicate, in your opinion, which solutions could be implemented to mitigate them (max. 300 words)

Migrating a workload can be very expensive, especially for large organizations with complex on-premises IT systems. The cost of migration depends on the size of the organization seeking to migrate and the workloads. As noted by the French Competition Authority in its opinion on the cloud ([opinion 23-A-08 on the competitive operation of](#)

[cloud computing from June 2023, 29th](#)), the median cost of cloud migration indicated by respondents to its consultation was additionally 450 000 euros, while the average is around 6.6 million euros.

In addition to the economic cost, the migration also requires the customer to make choices in the architecture of their IT system and applications. In particular, customers can choose to adapt their existing applications to a cloud environment, which will mean reworking these applications. In addition, some applications cannot be moved to the cloud either because they are intended to remain on-premises (e.g. when data is sensitive) or because there are plans to abandon them in the short to medium term. Finally, migrating to the cloud requires the migrating company's staff to be able to operate it.

As highlighted by the French Competition Authority, companies can prioritize their legacy IT service provider, which are also cloud providers, especially software services.

17. In your opinion, once the services of one cloud provider have been contracted, what technical, economic or other factors might make it difficult to change provider? In your opinion, which solutions might be implemented to mitigate these difficulties? (max. 300 words).

Once the services of one cloud provider have been contracted by a user, the latter could face strong difficulties to change provider or use multicloud strategy due to lock-in practices implemented by certain cloud providers. Examples of those are:

Financial: users can be faced with massive amounts of egress fees (easily amounting to several hundreds of thousands of euros according to Ofcom) should they decide to migrate their workloads – or part of them - to a different provider, dissuading them to leave their initial provider's services.

These fees having been recognized as non-justified by technical or economic reasons by competition authorities (e.g. FCA), OVHcloud believes they should be abolished immediately, whether it is in multicloud or switching situations.

Technical: hyperscalers use proprietary technologies (e.g. proprietary data formats and APIs) to limit the portability and interoperability of their cloud services so that users are forced to reformat their applications if they wish to use another provider's services. These reformatting costs being important, they have the effect of dissuading users from switching providers or using multi-cloud services.

OVHcloud believes the enactment of open-source interoperability and portability standards would be a positive step forward to lift such technical barriers to switching or multicloud.

Legal: such as long term contracts with no early exit clauses for legitimate reason and no provision for reversibility, data portability, interoperability, leaving customers with no choice but to stay with their provider.

Commercial: users might be engaged in a committed spend discounts type of contract with their provider, mandating them to reach a certain amount of spending should they wish to continue to benefit from their discounts. The spendings amount being generally

high, customers might not reach them and will be forced to re commit to their provider or risk having to repay part of the discount they benefitted from.

Interoperability of cloud services

18. In your opinion, what are the difficulties in contracting the services of more than one cloud provider? In your answer, please assess aspects of vertical interoperability (between services located in different cloud layers), horizontal interoperability (between services located in the same cloud layer) and interoperability of the data produced when using different cloud services. In your opinion, what solutions could be implemented? (max. 300 words).

OVHcloud considers that there are several technical obstacles to interoperability, which have also been identified by other competition authorities such as ACM³:

- The interconnexion of different IT services within a company can make migrations very difficult. It may then be necessary to rewrite numerous code lines to ensure communication between different cloud services. This process, which can be time and money consuming, requires staff (internal and/or external) who have been specifically trained for the new environment.
- Technical differentiation of cloud infrastructure services and cloud ancillary services, through proprietary technologies, makes it very difficult for users to adopt a multi-cloud strategy. Authorities such as Ofcom have stated that justification for such important technical differentiation is “less clear”.⁴
- Data portability can also be an important stake in terms of migration because it requires a dedicated API, and the adaptation of the migrated data’s format. Portability concerns SaaS and PaaS only since IaaS is highly standardised.
- Asymetry of functionalities. Another concerning feature of technical limits to multi-cloud is the asymmetry of functionalities. Hyperscalers are developing cloud solutions and functionalities which are “single-cloud by design” as they are available only within their ecosystem and cannot be adapted nor made available to third party cloud services providers.

The enactment of open-source interoperability/portability standards cloud providers would represent the best way to favor interoperability between cloud services and thus the ability for cloud users to use the services of more than one cloud provider.

While such standards would likely apply to interoperability within the IaaS/PaaS layers, authorities should also ensure software providers also present in the cloud layer do not engage in self-preferencing practices, by intentionally restricting the interoperability and functionality of their software when used on a third-party cloud provider.

³ <https://www.acm.nl/system/files/documents/public-market-study-cloud-services.pdf>

⁴ Ofcom Final Report, point no. 5.52.

19. Assess the advantages and disadvantages of adopting interoperability standards or protocols, including their impact on competition and/or innovation (max. 300 words).

Interoperability is an essential pillar to guarantee users a concrete freedom of choice regarding their data usage, based on their current and future needs and capacities.

To achieve this, having a set of open source technical standards that are easily understandable and approachable is key. In that respect, OVHcloud supports the following objectives to facilitate interoperability:

- the establishment of essential requirements of interoperability, based on open-source standards, that would apply to all operators;
- the principle of a presumption of conformity for interoperability solutions that meet harmonised standards.

Although it is true that the full standardization of cloud infrastructure services could be technically complex, OVHcloud considers that this does not prevent from setting common standard or at least pave the way for future standardization. The elaboration of common standards which is, by nature and across all industries, a complex process involving numerous stakeholders, is central to the development of interoperability. In particular, standardization has historically been key to the development of major technological sectors, such as the telecom industry, without dampening innovation.

The enactment of such standards would certainly have a positive effect on competition, by lifting part of the technical barriers to switching operators or having multicloud strategy that users currently face, restricting their freedom of choice.

Moreover, this standardization will eventually be implemented at EU level as the *Data Act* mandates cloud providers to ensure compatibility with common specifications and standards for interoperability to be developed in the market and/or by European standardization bodies. Ensuring that this standardization process does not lead to “*regulatory capture*” by hyperscalers⁵ will be crucial to ensure the Data Act’s ambition is not distorted.

⁵ FCA Opinion, point no. 579.

Commercial terms

20. When contracting services from the same cloud provider, and from the point of view of its commercial offer, assess what obstacles exist to contracting each service separately (max. 300 words).

A major barrier to contracting each service separately, which constitutes an effective barrier both to switching and multicloud, relates to Committed spend discounts. Committed spend discounts is a commercial practice used by cloud providers, consisting of committing their customers to a minimum spend amount on their services over a given period of time, in exchange for a percentage discount on these services.

Although the practice can be beneficial to users, by allowing them to obtain lower prices for their services, it can become detrimental when hyperscalers voluntarily “overcommit” their customers by setting very high amounts of spendings to be reached if the user wishes to benefit from his discount. In this situation, if the customer does not reach this minimum amount, which takes into account all of the provider's cloud products (possibly within different layers of the cloud, including software), it is forced to pay the difference between the discounted amount and the amount they should have paid initially.

This practice acts as a lock-in effect, thus preventing the user from contracting with other providers, in several ways: (i) it encourages users to stay with the hyperscalers' services by committing them to minimum spending amounts, regardless of their actual needs and possibly with amounts much over those actual needs, and (ii) it encourages customers to turn to the hyperscalers' services for all of their cloud needs - in order to reach the minimum amounts set - even if those of another provider better meet some of their needs.

As identified by Ofcom, as alternative providers do not offer a range of products as wide as hyperscalers, these committed spend discounts present the risk to reinforce the existing barriers to competition, by strongly encouraging users to purchase all of their cloud services from one provider, most likely an hyperscaler.

21. When contracting additional services from a cloud provider, assess the relationship between contracting these services and the discounts for the use of additional services (max. 300 words).

As described in the answer to Q20, the practice of “overcommitting” customers to a certain amount of spendings for them to benefit from discounts can have a lock-in effect on cloud users. Indeed, these amounts being generally very high, they have for effect to lead the user to put all of his workloads - and thus his need for additional services not initially planned in his contract - within the same cloud provider, to ensure that the spending commitment is reached and that the discount is not jeopardized.

Thus, the discount serves as a strong incentive for additional services to be purchased from the same provider, usually an hyperscaler, at the expense of users' freedom of choice and competitors' ability to compete with the dominant providers.

Public procurement of cloud services

22. Assess the existing obstacles to competition in the public procurement of cloud services, and indicate the solutions that could be implemented in your opinion (max. 300 words).

OVHcloud notices that there is no State' policy or guidelines regarding the public procurement of cloud services in Spain.

According to OVHcloud, Spain needs to develop a real commitment about ordering cloud services to guarantee data sovereignty. The implementation of this strategy will also need to be closely monitored, notably by creating regular reviews to measure, in a transparent way, its level of dependence on non-European digital technologies.

In France, since May 2021, there is the doctrine 'cloud in the center' where the Government makes the cloud a prerequisite for any new digital projects within the State or substantial reworking of the existing architecture. The aim of this doctrine is to accelerate digital transformation for the benefit of users, with strict respect for cybersecurity and the protection of citizens and business data. Administrations' digital services will be hosted on one of the state's two internal interdepartmental clouds or cloud services offered by cloud providers meeting strict safety criteria. The French national authority in the field of security and defense of information systems (ANSSI) has thus developed 2016 SecNumCloud framework for qualifying service providers of cloud computing. From OVHcloud point of view, this doctrine needs to be applied more widely to public services of a country that are essential. Indeed, these operators, regardless of their capital structure, hold information particularly sensitive to public order and the continuity of critical infrastructure. It is also necessary to extend at European level the work done in Spain and in France on cybersecurity certification for cloud services. The European Cybersecurity, ENISA, is currently drafting a European version of a Cloud cybersecurity (the European Cybersecurity Certification Scheme for Cloud Services "EUCCS"). This should contain criteria relating to the extraterritoriality of legislations and attest that a cloud provider qualified at the highest level of this certification can ensure technical and legal data security.

Additional comments

23. Provide additional comments on other barriers, distorting factors or issues that you consider relevant to the functioning of this sector (max. 500 words)

No additional comments

4. Assessment of the sector regulation and other solutions

Currently, the functioning of the cloud sector is subject to a set of national and European regulations (in particular, recent regulations relating to the digital economy and the use of data). The objective of this section is to obtain information on possible improvements to the current regulations, as well as other possible solutions or recommendations that could foster competition in this key sector for the digital transformation.

24. Assess the current European and national regulatory framework in its ability to promote an efficient and competitive operation of the cloud services market. If so, how could it be improved? (max. 500 words).

The Data Act represents a step forward for more competition within the European cloud market, by setting provisions to:

- Lift financial barriers to switching: by abolishing egress fees by 2027.
- Ease some technical barriers to switching: by mandating standardization bodies to establish interoperability and portability standards for the European cloud market.

Although these measures are positive and should be welcomed, OVHcloud believes their implementation pace to be too slow (e.g. egress fees will only be abolished by 2027) and their scope too restricted (e.g. Data Act does not cover practices such as tied selling, self-preferencing, cloud credits) to effectively end anticompetitive practices within the cloud market in the short term.

Recent figures indicate that, meanwhile the European cloud market has been multiplied by 5 between 2017-2022, European players market share has been divided by more than 2 over the same period (from 27% in 2017 to 13% in 2022). This has resulted in a very high market concentration around the 3 hyperscalers, which now controls over 72% of the European cloud market.

This rapid-pace market degradation calls for stronger and quicker measures to promote more competition within the cloud market. An example of this is the recently adopted French law to secure and regulate the digital space which contains several measures to anticipate the Data Act's provisions and complement them in order to answer this urgency.

Example of these measures are:

- Immediate limitation of egress fees: with a maximum amount able to be charged by providers set by French authorities.
- Prohibition of tied selling within the cloud market.
- Regulation of self-preferencing: by granting new powers to the French Competition Authority to sanction such practices within the French market.
- Regulation of cloud credits: to ensure they are limited in time and thus not used to unfairly attract cloud users solely thanks to superior financial means.

- Provisions to implement interoperability/portability standards: with standardization bodies mandated to establish such standards, in cooperation with European authorities.

Introducing similar measures in other Member states such as Spain could be a solution to correct the competitive dynamics within the cloud market and promote more competition. Such measures should focus on :

- Ending lock in practices currently preventing users to switch or to use multicloud services: by abolishing egress fees immediately, establishing open source interoperability/portability standards, limiting the lock in effect of cloud credits.
- Preventing abuse of market power: by forbidding the linking of adjacent services with each other (i.e. bundling and tied selling) and ensuring equal software experience regardless of the cloud provider (i.e. preventing self preferencing practices from software providers).

25. In your opinion, what other regulations could affect the competitive dynamics of the cloud sector? If so, how could they be improved? (max. 500 words).

The Digital Markets Act (“DMA”), which lists cloud services as a category of Core Platform Services which could be subject to its provisions could be an effective way to promote more competition within the cloud sector through ex ante regulation.

Unfortunately, the DMA currently fails to address competition issues within the cloud sector for several reasons:

1. The scope of practices prohibited by the DMA fails to address key competitive dynamics of the cloud sector: for instance, tied selling practices between software and cloud services are not covered, interoperability and self-preferencing provisions do not apply to the cloud sector, financial lock in practices such as egress fees and cloud credits are not covered by the regulation.
2. No cloud service has been listed as CPS, even though multiple European competition authorities have pointed out a grand market concentration around the 3 hyperscalers and the existence of harmful practices within the European cloud market.

These shortcomings could be corrected thanks to the evolutive nature of the DMA, which obligations and scope can be adjusted over time. The main necessary improvements to correctly address the competitive dynamics of the cloud sector would be:

- Adjustment of the practices prohibited by the DMA: to ensure gatekeepers cannot engage in lock in practices (e.g. interoperability/portability restrictions) or abuses of market power (e.g. self-preferencing) within the cloud market.
- Extension of the scope of CPS covered by the DMA: to ensure that adjacent markets such as software (incl. on prem) are effectively covered and thus subject to prohibitions already present in the DMA, such as tied selling.
- Inclusion of gatekeeper’s cloud services within the scope of CPS.

Regulators should also ensure that the development of AI does not lead to even further deterioration of competition within digital markets, particularly the cloud, and reinforce the positions of already dominant players. Cloud being a key input to AI, failing to ensure the competitive development of the AI market would certainly lead to further deteriorating

competition within the cloud one. As such, it will be essential for European and national regulators to ensure the emergence of AI is not leveraged by hyperscalers to reinforce their already dominant positions within the cloud market through practices such as:

- Technical lock-in: to lock users which have trained their models on their solutions (e.g. autoML) to deploy and exploit it solely from their cloud infrastructures.
- Financial lock-in: to unfairly capture the AI market by granting amounts of cloud credits to AI startups/companies alternative providers simply cannot match (e.g. up to 350,000\$ per user) and eventually lock them into the services of the provider.
- Self-preferencing: to allow certain models or AI products/solutions developed by hyperscalers to be solely deployed from their cloud infrastructures.
- Strategic partnerships leading to competition distortions: for instance, by granting certain providers privileged access to the hardware (i.e. GPUs) necessary to AI.

Additional comments

26. Provide additional comments on other solutions or recommendations (not necessarily of regulatory nature) to improve the competitive dynamics in the cloud sector (max. 500 words)

No additional comments