

Simon Blackburn
Managing Director
Prolinx Limited
9th November 2023

Competitions & Market Authority
25 Cabot Square
London, E14 4QZ

Dear Sir/Madam,

Established in 1997, Prolinx Ltd is a UK medium size enterprise specialising in cloud services for the UK Government and UK Defence markets.

Over the past 10 years, UK cloud providers have been marginalised by the Government's Cloud First policy in favouring public 'hyperscale' cloud providers. This has impacted inward investment and growth, and sadly seen some world class service providers fall by the wayside; UKCloud being a prime example.

I am grateful that the CMA is investigating the anti-competitive behaviours of the hyperscale cloud providers as I'm deeply concerned that UKCloud, although not the first casualty of government's fixation on US hyperscale providers, will almost certainly not be the last unless the government changes its position on cloud hosting procurement.

Theories of Harm

I am in agreement with the four Theories of Harm that the CMA has detailed in the 'Public cloud infrastructure services market investigation' 'Issues statement'.

Comments:

The key challenge for the CMA is the anti-competitive features of the hyperscaler model that makes it difficult for customers to leverage diverse multi-cloud services – or more succinctly put, vendor lock-in due to technical interoperability barriers, data egress fees, and non-transferrable applications and services as identified in the Issues Statement. In addition, and of principal concern related to Prolinx market engagement, the CMA is requested to consider:

Digital & Data Sovereignty: If cloud provision in the UK continues to consolidate on hyperscale there is a very real threat to the UK's ability to achieve digital sovereignty – at least for data and digital services that it may want to protect given value and/or sensitivity. This threat is exacerbated by the proposed "risk-based" assessment for international data transfers set out in the Data Protection and Digital Information Bill: this is a gift to the hyperscalers which will inevitably develop tools to assist cloud consumers to assess risk in a way that favours hyperscale off-shore hosting where any "residual risks" are off-set by cheaper hosting costs.

The reality is that vast concentrations of data are held by a very few cloud vendors and unless UK starts to value and support its own cloud and hosting industry the UK will fall behind the US and Europe. A legal and regulatory environment should be established that keeps the UK's data in the UK, unable to be accessed by foreign authorities without the lawful consent of British courts.

The establishment of a pro-competition regime in the digital markets is welcomed, but for it to be truly effective it must be matched with an appreciation of the importance of retaining data onshore in the 21st Century and ensuring national resilience.

Competitive Procurement Practises: The overall lack of competition has been a significant factor in the unhealthy state of the UK cloud infrastructure market.

The CMA should consider extending the scope of competitive procurement beyond the Four Theories of Harm to look at how hyperscale cloud service providers interact with local (i.e. UK) competition and then frame that with wider and more strategic questions around economic, societal and national capability impact.

To reform public procurement practices: government must reorient its approach to cloud procurement and the Procurement Bill provides the perfect opportunity. Two key changes are needed:

1. Domestic cloud providers should be the '**provider of first preference**' for government cloud contracts.
2. There should be an end to direct awards in government procurement of cloud services with competition being the default.

Additionally, I implore the CMA market investigation to consider broader anti-competitive practises that are having an impact on the UK cloud services market.

Broader Anti-competitive Practises

Free Usage Credits. Whilst technically this may be considered under Theory of Harm 3 (committed spend discounts) it is worthy of separate exposure as a significant anti-competitive practise.

AWS Activate and Google provide startups with \$100,000 in free credits; incentivising start-up service provider companies to target public sector organisations.

This enables a huge enticement to Government departments with finite budgets to commit to hyperscale cloud services, but it also starts to lock them in to future services. Microsoft's BizSpark program offers similar benefits.

Issues:

- Small and Medium Private Cloud Service providers do not have the financial capacity to offer large free usage incentivisation credits.
- Once customers are locked into a hyperscaler, it can be difficult and expensive to switch to a different provider.

The CMA should consider:

1. A recommendation to provide guidance to buyers and consumers of cloud infrastructure services, highlighting the risk of vendor lock-in and how that lock-in might occur.
2. A regulatory requirement that Cloud providers in the UK should be required by law to limit the amount and term of free credit, allowing smaller providers to remain competitive against hyperscalers.

Government Department Incentivisation. [X] AWS and Microsoft career transition courses, provided for [military] service leavers, is a factor in continued policies favouring hyperscale services before private UK cloud service providers.

An example of this is the AWS MOD Re:start training and job placement for military service users career transition.

Issues:

- Smaller companies do not have the financial capacity to offer large free incentives.
- Skilled resource in the cloud services industry is at a premium. If 'free' training is founded on hyperscale cloud services and the cost of retraining technical staff for vendor inclusive cloud service providers is prohibitive, then the competitive market will diminish as hyperscale cloud skills are rarely transferrable.

The CMA should consider a recommendation that 'free' training courses should be required by law to contain no less than 50% platform neutral education and certification (such as the Cloud Native Computing Foundation and the Linux Foundation).

Expansion of contracted Services. Pay-per-use pricing can, and does, lead customers to use additional cloud features and services without formal tender or procurement. This happens as developers and engineers see additional features of interest and implement them without a formal tender process or often knowledge of their organisations.

Issues:

- Purchasing approvals and processes are not followed (and this includes procurement law and policy in the case of the UK public sector)
- Customers may be unaware of the further lock-in or increased financial commitments. This can lead to customers paying more for cloud services than they need to and for customers being further locked into a particular provider.
- Unregulated and unmanaged consumption of services and features puts potential competitors at an extreme competitive disadvantage as they will never be given the opportunity to demonstrate their own capability and value.

The CMA should consider a recommendation that:

1. All public sector cloud opportunities should be subject to competitive tender, whether that be new projects, workloads, applications or additional cloud features & functionality.
2. Cloud consumption that exceeds a monthly threshold per month (e.g. £10,000) should be subject to continuous review and oversight from financial and commercial professionals.

Level the Commercial Playing Field. [🔗]

Despite strategies and plans to adopt public/private hybrid and community cloud platforms, legacy Government contracted services have left departments locked-in to a two-tiered system where hyperscalers are given preferential treatment and private cloud providers are held to a different standard of commercial compliance.

Issues:

- [🔗] Hyperscalers are preferentially encouraged to compete for contracts that they would not otherwise be able to qualify for, and for contracts that are not available to private cloud providers that have technical service equivalence. [🔗]

- This is a serious problem that needs to be addressed. It is grossly unfair and anti-competitive to smaller providers, and it undermines the integrity of the procurement process.

The CMA should consider the practice of 'regulatory bending' in the public sector, and the extent this has benefited hyperscale service providers to date.

Going forward, any public sector policy rule or procedure that is being changed to accommodate hyperscale cloud computing should be subject to review and approval by an independent body with the powers to refer the change to the CMA.

AI Services. Artificial Intelligence (AI) engines are trained on data, and the more quality data they have to train on, the more effective they become.

Hyperscalers continue to acquire or develop their own AI features & capabilities and offer these as services available to their customers – often implemented without a formal tender process or procurement competition (see 'Expansion of contracted Services' above).

Issues:

- AI companies in the UK are disadvantaged because there has been no competitive procurement and visibility of a sales opportunity (even when alternative AI tools are a better fit for the job).
- The UK research community AI engines are starved of language models to train themselves upon.
- The hyperscaler benefits with incremental revenue, increased market share and also improves its AI engine by accessing and training itself on new datasets.

The CMA should consider a recommendation to provide guidance to buyers and consumers of cloud infrastructure services, highlighting the risks of defaulting to proprietary AI tooling without exploring the available market. This issue needs to be raised and addressed across government and reflected in procurement policies.

The UK-US data bridge. The UK-US Data Bridge came into force in October 2023, enabling the transfer of data from the UK to the US in compliance with prevailing data protection regulation, provided the US company has self-certified against both the UK and EU data transfer frameworks. Whilst the ICO and others have expressed concern that personal data transferred to the US under the agreement will not have the same level of protection in the US as it would under UK law it is unclear whether government undertook any analysis of the impact of the agreement on the UK's own cloud hosting industry.

Issues:

- US cloud platforms are generally cheaper than their UK equivalents, given the vast scale. Making it easier to transfer data to the US will put UK cloud providers at a competitive disadvantage.
- The data bridge will make it much more challenging for the UK to establish its own sovereign digital infrastructure.
- UK citizens, or data subjects, are being put at risk given the residual concerns expressed by the ICO and others.
- The UK-US Data Bridge is a quick political fix made at the expense of UK citizens and the UK cloud hosting industry.

The CMA should consider advising Government to develop a strategy to encourage the inward flow of data to the UK (rather than outward), to build the UK's digital economy and

national digital capability. The UK-US Data Bridge needs to be overhauled to ensure that UK citizen data is always treated in compliance with the prevailing data protection legislation in the UK.

Conclusion

I welcome Ofcom's referral of the supply of public cloud infrastructure services in the UK to the CMA. I am also encouraged that the four 'Theories of Harm' presented by the CMA in the 'Issues Statement' will address fundamental anti-competitive behaviours that has left many Government Departments 'Locked-In' to cloud service provision at the expense of UK Cloud service providers.

However, I believe that constraining the investigation to only the four theories of harm will not sufficiently expose the extent of anti-competitive policy and behaviours, and the impact this has had, and continues to have, on the UK Cloud services industry.

The CMA is requested to take a more holistic view of the Government's approach to UK cloud service provision. Current practices not only raise serious questions regarding data sovereignty but also have significant impact on the UK economy and growth in global data service markets, and resilience in Critical National Infrastructure.

To remedy the situation, the CMA will need to address legacy commercial practises that have left UK plc locked-in to expensive and, on occasion, sub-optimal hyperscale cloud service provision.

Any proposed remedy may be inconvenient for Government customers and any given provider but without significant change the UK could end up paying a very high price in the longer term if the current market dynamics remain.

I urge the CMA to take the UK Cloud industry concerns into account and to expand the scope of the investigation to include a more holistic view of the public cloud infrastructure services market. This is essential to ensure that the UK has a competitive and innovative cloud market, which is in turn essential for the UK's economy to grow and thrive.

I am happy to be contacted by the CMA and provide more detail on the issues raised.

Yours Sincerely,

Simon Blackburn
Managing Director
Prolinx Limited
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