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RESPONSE TO WORKING PAPER

CCIA response to public cloud infrastructure services market investigation technical barriers working paper

Among the remedies under consideration in its working paper on technical barriers, the CMA is looking at the potential for increased standardisation, supporting interoperability to mitigate technical barriers. This note is intended to explore those issues and help CMA consider opportunities and trade-offs in this area.

Technical barriers

It is important to bear in mind that the extent of the challenge posed by technical barriers, reflected in customer concerns noted in the CMA working paper, might reflect diverse demand- and supply-side factors:

- Customer-side challenges - enterprise IT deployment is generally challenging, particularly for services relevant to many parts of the organisation. This includes settings where there is clearly no issue of intentional technical barriers, such as the deployment of tools developed in-house. This is mitigated by market solutions such as consultancies and will mean that some normal differences between providers, which could be managed through achievable technical workarounds, present themselves as material technical barriers.
- Provider-side challenges - to the extent that many services are complex and providers are seeking to compete in large part through innovation, we can expect APIs and other integration tools to differ between providers and change over time.

Whether customers are experiencing operational challenges in switching is important, but cannot in itself address whether or not there are technical barriers susceptible to regulatory intervention.

Changes in the extent of standardisation over time may also require nuanced analysis. While the diversity of services will complicate analysis, we should expect a kind of life cycle where services of a given type are at first similar (as one provider emulates the innovation of another); then differentiate as providers explore different ways of improving on the concept, or in how they meet the customer need; before standardising to the extent that a best practice solution emerges. If we look between services, it is therefore reasonable to believe that the most mature, those subject to the least ongoing innovation, are most likely to be amenable to standardisation, and vice versa.

Looking at the bigger picture, this might therefore mean that we expect less standardisation in periods in which innovation is particularly fast-paced, more services are at the differentiating stage of that life cycle, with technical barriers a side effect. Given the impact of AI, and other ongoing changes, it is reasonable to expect that this is one of those periods.

Standardisation and innovation

Standardisation can enhance competition to the extent products are then closer to commodities, easier to substitute for one another. However, there is also a long-standing critique that compulsory standardisation could undermine more meaningful dynamic competition by impeding differentiation in the market.

Besides those impacts on competitive dynamics, standardisation can support efficient delivery, making it easier for customers to implement new services. However, compulsory standardisation might impede the creation of services that add real value for customers, where the lower transaction costs within a firm allow for pioneering new integrations.

In this context, with complex and often hard-to-evidence trade-offs, the CMA will be able to intervene most effectively where it does so carefully and works with established standards.

Policy remedies

With that in mind, we would distinguish between three approaches:

- Existing standards - where firms might be incentivised or required to offer services compatible with well-established standards.
- New standards - where firms might be incentivised or required to create standards or offer services compatible with standards that are novel or incomplete.
- Principles-based approaches - where firms might be held to a standard for interoperability, without a specified means to achieve that.

In our view, existing, mature standards are the best means to achieve improvement with cultivation of new standards on a collaborative and voluntary basis. Principles-based approaches, while appealing in many other circumstances, seem ill-suited to addressing technical barriers in cloud services.

Existing standards

Where there are well-established standards that are used by most or all of the market, or which they could easily adopt without materially compromising their wider services, it will generally be more reasonable for CMA to take the view that not implementing those standards reflects some kind of market failure. It will also be more practical for the CMA to intervene and require the implementation of those standards where it can establish that it is proportionate to do so. Providers should still retain discretion to offer services outside that standard, so that standards do not impede innovation, but the standards can mitigate technical barriers.

It is important to be realistic about the likely scope for this. Given the diversity of cloud services, and the novelty of many of them, there are only so many readily-available standards and many providers will already integrate the most valuable. The most effective progress is likely to be incremental, looking for situations where there is a valuable standard and where regulatory support might help to coordinate much broader adoption, or address incentives not to take part, thereby improving overall market function.

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In terms of next steps from this investigation, CMA might consider building on analysis thus far on the specific standards available, their technical merits and potential value to customers.

Potential standards

Achieving interoperability is generally challenging and standard-setting is a notoriously difficult process. This reflects the challenges described above, that companies bring their own approaches and that the standard-setting process can have strategic implications that all stakeholders need to consider carefully. This means that patience is required; that workarounds are a legitimate part of most technology markets; and supporting customers to overcome technical barriers can be an important role for market actors such as competitors and consultancies.

However, regulators can support the development of standards in a few ways:

(1) Technical support - this could include convening industry to support the development of pro-competitive standards, working with appropriate industry bodies.
(2) Incentives - to the extent regulators make clear that they see a case for a standard in a certain area, and customers find it valuable, this can make it easier for providers to prioritise supporting the development of such a standard.
(3) International engagement - working with international standards-setting bodies and other regulators to ensure that standards which are set are usable in a UK context and proceed at pace.

Generally speaking, the more customer demand over which the costs of implementing a standard can be diluted, the more it is likely to be adopted by providers. If regulators can help standards attain that scale at which they become commercially attractive then they might ease overall technical barriers in the market.

Principles-based approaches

In many settings a firm-level principles-based approach might be preferable in that it allows for a flexible commercial response to the regulatory need. It necessarily increases uncertainty, however, as companies have to make their own assessment of whether they have complied with the principles, which can chill innovation by complicating the design process.

In this area in particular, one of the hardest-to-establish questions to answer definitively might be whether interoperability is net positive for competition and how challenging it might be to achieve in practice. There is a risk with principles-based approaches that a company is faced with an expectation that it feels it is unable to meet and is expected to invent a solution. This is particularly the case for interoperability where an effective solution will often depend on other market participants (which might not have an incentive to make things easier for the regulated firm).

In our view, to the extent a principles-based approach can add value it would be in establishing high level principles at this stage for the CMA and when and how it intends to support standards, not firm-level requirements.