



CIONET

DISCUSSION SUMMARY

**ACHIEVING THE
PERFECT BALANCE
BETWEEN PUBLIC
CLOUD AND ON-
PREMISES FOR YOUR
IT OPERATIONS**



This article was written by Roger Camrass, Director of Research for CIONET, and is based on conversations during a virtual event on 14th July 2021 on the relationship between public cloud and on-premises. The event was sponsored by Hitachi-Vantara.

Public cloud is often seen as the modern-day answer to next generation infrastructures, and cloud native as the pathway to application modernization. While public cloud and cloud-native applications ensure choice and flexibility, they also create operational complexity. A 451 study by Hitachi-Vantara shows that 46% of all workloads will continue to run on-premises. This raises a debate about what is the best balance between public cloud and on-premises. Twenty-five UK and German CIOs gathered to share best practice relating to this crucial issue.

Setting the context for the discussion

Neil Lewis, director, EMEA at Hitachi-Vantara introduced the session by outlining two trends associated with the journey to cloud. In his experience, many early adopters choose a 'lift and shift' approach to migrating applications and workloads to the public cloud. Evidence now suggests that this has delivered few tangible benefits. In Neil's view, only by modernising applications to exploit a cloud-native environment can organisations achieve measurable returns from a move to public cloud.

The second observation is the need for incumbent organisations to put data at the centre of their business strategies. This is especially urgent given growing challenges from digital natives in sectors such as financial services and e-commerce. Given the high volumes of data generated in a modern enterprise today, this requires appropriate data storage and analytic tools that could exist both in the cloud and on-premises. Organisations need an integrated data strategy to preserve a balance. In Neil's view, IT professionals need to assess which applications are most in need of modernisation, and how might data be integrated before determining an appropriate cloud or on-premises model.

Why move to public cloud?

The notion that public cloud providers operate data centres at scale and therefore can offer the most economic solutions to compute power and storage was disputed by some of the delegates attending the event. Equally, the move from CAPEX to

OPEX is not always advantageous, especially for regulated sectors.

The consensus during the discussion was that only by considering the broader business benefits of speed, agility and innovation could public cloud be justified. Examples here include:

- For a German publishing house, cloud enabled the firm to accommodate peak volumes in its USA education sector during the pandemic
- The same was true for the UK's largest retailer who saw online customer inquiries increase exponentially in 2020
- When a delegate organisation was required to split out its operating divisions, AZURE provided the most flexible platform to support this structural change
- The adoption of a data-centric business model at board level requires all information to be stored in one place, as is the case for Deutsche Bank that has opted for Google Cloud.

Customers and service providers can also influence decisions on when and where to move to cloud. The rapid rise of Software as a Service such as Office 365, HR and CRM encourages a move to public cloud.

What applications should migrate to public cloud?

Delegates had typically hundreds if not thousands of applications, the large majority of which were developed on-premises over many decades. Given limited IT resources, Hitachi-Vantara recommended that CIOs should target only those applications with a high return on investment. This suggests a systematic appraisal of the applications portfolio, divided into three segments:

- Legacy applications that cannot be easily re-platformed in readiness for cloud. These are typically mainframe based, such as core transaction systems, developed using waterfall methods
- Modern applications that have also been created on-premises using agile techniques and DevOps tooling. Many of these can be transferred to cloud providing that common tooling exists
- SaaS services that are replacing many functional applications such as Office, CRM and finance. These leave little choice around migration.

According to the 451 research, report by Hitachi-Vantara, the outcome is likely to be 50:50 for those organisations who are pursuing a balanced cloud/on-premises strategy. Where business strategy dictates an 'all cloud' approach, a complete overhaul of applications.

Why adopt a cautious approach to cloud migration?

Delegates were at different stages in their respective cloud journeys and had many cautionary tales to tell. For a leading UK retailer, cloud costs were far higher than on-premises and only merited in areas where demand volatility is high. For a rail operator who ventured into public cloud for home working last year (Office 365), security concerns remain regarding the network operations themselves. For a global defence company, the geo-fencing of data often merits on-premises over public cloud.

Contractual obstacles were also mentioned, such as converting software licences into cloud subscriptions (e.g., SaaS), and altering long term outsourcing arrangements for data centres and networks. These suggest together that progress to cloud will take longer than many CIOs envisaged when adopting a 'cloud-first' strategy. In the words of NHS Digital, it will take decades to modernise and migrate many of our core applications.

Perhaps the most interesting debate of the evening was about how far the pendulum should swing. Given the preference for agile methods and DevOps tools, some might favour cloud native. However, in the words of a leading UK retailer, on-premises can still offer favourable conditions for DevOps. In their situation, some workloads are being brought back to on-premises.

How to formalise your cloud strategy

Given that most delegates will be left with a hybrid cloud approach, there is a growing need for a set of architectural principals that govern the balance between on-premises and public cloud. For example, the CIO of Fujitsu stated the need for a strong data integration layer that encompasses both environments.

Business drivers such as speed, agility and innovation should play a defining role in setting such principles. For example, a major stock exchange sees itself as a pure data business. Developing new products requires high levels of flexibility and speed to keep ahead of the competition. Linking on-premises and cloud can be achieved more smoothly by adopting Kubernetes and open APIs, especially in cloud-native environments.

Where do we go from here?

Deciding which applications and workloads go to the cloud will remain an enduring

debate amongst incumbent IT organisations who have limited investment resources.

Hitachi-Vantara observed that in considering a move to cloud, 20% of applications offer around 80% of benefits.

For those companies who are creating a business strategy for the digital world, a data-centric model based on cloud platforms is a likely eventuality. All delegates agreed that clear visibility of cloud usage plus an overarching governance framework (based on principals) is a prerequisite for determining an appropriate balance between on-premises and public cloud.

In conclusion delegates agreed that no IT organisation needs to be afraid of preserving or enhancing on-premises despite the current hype relating to public cloud.



About CIONET

CIONET is the leading community of more than 10,000 digital leaders in 20+ countries across Europe, Asia, and the Americas. Through this global presence CIONET orchestrates peer-to-peer interactions focused on the most important business and technology issues of the day. CIONET members join over a thousand international and regional live and virtual events annually, ranging from roundtables, programs for peer-to-peer exchange of expertise, community networking events, to large international gatherings. Its members testify that CIONET is an impartial and value adding platform that helps them use the wisdom of the (IT) crowd, to acquire expertise, advance their professional development, analyse and solve IT issues, and accelerate beneficial outcomes within their organisation.

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