

Why private cloud is needed to optimise your overall cloud strategy.

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To keep IT infrastructure up to date, operational and secure, enterprises today must manage a perfect balance of IT economics, application performance and security controls. Businesses can thrive only if they are truly agile, leverage highly automated infrastructure, and incorporate real-time data analytics when making critical-business decisions.

For these reasons we see many organisations choosing a path to drive a 'cloud first' strategy and in particular the use of one or more public clouds, known as 'multi-cloud'.

However, whilst public cloud may deliver these objectives there are still many reasons why an organisation should invest

in their own private cloud as part of this overall strategy. We will explore the reasons and will re-evaluate the case for why the economics may actually be better

to use private cloud as part of their hybrid cloud strategy

We will actually make the case that these private clouds often provide levels of agility, automation, and efficiency as well as cost models that are comparable to those of public clouds without forcing users to give up control of data or risk outages related to lower availability of service-level agreements (SLAs).

Basic Principles of Cloud

To understand the principles of choosing a private cloud we first have to reconfirm our understanding of the key cloud technologies and terminology before exploring the deployment options.

All types of cloud are based on next-generation datacentre technologies that often support a completely virtualised and hyperconverged infrastructure (HCI).

These types of solutions collapse core compute, storage, and network services onto a highly virtualized and potentially automated cluster of shared or dedicated x86 server resources.

There are a large number of options from various vendors and cloud providers to choose from. But common is they all use cloud virtualisation/ HCI technologies and therefore the adoption of this technology will be a key principle to support a future hosting IT strategy.

In this way all types of cloud can reduce infrastructure spending, reduce complexity, and increase the agility of IT staff.

The next step is to choose the right approach for application hosting and for building the underlying physical infrastructure that supports it.

We see that:

- Private cloud is ideal for predictable workloads and custom SLAs for critical business applications (e.g. data backup and internal databases). Then to plan accordingly to add resources as needed to accommodate expected growth. Private cloud can therefore provide a controlled, predictable forecast on cost for defined workloads.
- Public cloud is better where greater elasticity/ burst-ability is needed for unpredictable workloads (e.g. digital and IOT applications) where applications can be standardised to run on commoditised platforms with common SLAs. Often the challenges with a public cloud service is that forecasting cost per workload is

challenging especially if the cloud provider frequently changes their price structure.

- Traditional data centre or co-location environment for when there is no “cloud” migration option. i.e. when legacy IT compute and storage platforms are running key business applications.

Using these definitions, the location and type of cloud will largely be chosen on the predictability of the workload. This will provide the reassurance that the volume of cloud resources required are the correct ones.



Using poorly suited cloud services for application requirements that end up underutilised or not used at all needs to be avoided.

Optimising Interoperability and Security

Interoperability between data centres and different types of cloud can completely change the economics of choosing where to host workloads.

This is because adding one or more public cloud services areas is like adding another data centre to the IT operation. Like any data centre the interoperability of the network, security and general server/ storage interconnectivity requirements need to be considered.

For example, when adding a public cloud there are always additional WAN network costs to provide bandwidth from the enterprise to the cloud location.

Using software defined WAN in combination with internet can offset some of the bandwidth costs of traditional leased line/ MPLS services but if the application is business critical there may be no other option to deliver the reliability required.

Likewise, the security constraints and support requirements become more complex to manage. A central security zone of trusted interconnectivity and hosting will need to be built between the various types of hosted operation. This may require multiple interconnections not only to remote user locations but between server locations.

This will require a good understanding of how everything interconnects. This knowledge will also be needed during problem determination such as when an application is reported as “slow”. You simply have to understand who you pick up the phone to call when it goes wrong.

By building a private cloud an enterprise can ultimately minimise the complexity and cost of the interoperability requirements as well as provide a predictable cost for well-defined workloads.

Summary and Conclusions

To say a client only needs to invest in new technology and skills to build a new private cloud though is wrong. Simply there is no “right” model for building cloud as no

single cloud service offers everything an organisation will need.

But by utilising multiple cloud offerings of both public and private cloud an organisation can find the best blend of economics and service criteria over time and switch workloads as necessary.

There are many different ways that this interoperability can be implemented and managed, but the best solution will ultimately allow applications and components to securely interoperate between public and private clouds and allow applications to be portable across these environments.

However, reaching this ideal IT operating model is not always easy and requires many more skills and expertise than is required to run traditional IT services to deliver the required benefits. These include more comprehensive hybrid vendor/management solutions, as well as a greater expertise in designing, building and weaving together hybrid clouds.



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our customers minimise the cost and maximise the business value of their IT expenditure. We have experience delivering globally across a wide range of industry sectors.

Our people strive to deliver excellent customer service, to exceed expectations and consistently go that extra mile.

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