



HYBRID CLOUD

Preparing for the new demands
of a digital economy

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HYBRID CLOUD:

Preparing for the new demands of a digital economy

Contents

The new landscape of applications	3
Coming to terms with cloud economics	4
Controlling data for compliance & security	5
Removing the complexity of hybrid cloud	6
Lexel is your partner on the journey to hybrid cloud	7

Every organisation is now dealing with an explosion of data across their business. Between business-critical systems, new cloud-native applications, and the introduction of Internet of Things (IoT) devices at the edge of networks, data has become increasingly decentralised - which opens up both opportunities and challenges.

To unlock new insights and intelligence from our data, we need technology and processes that can operate at the same pace at which data is being generated. However, creating this agility creates a great deal of management complexity, risk and costs.

Our current infrastructure environments were not designed to facilitate the new outcomes we need to drive for our business including:

- Maximum **efficiency and full visibility** of cloud spending
- Rapid **development and deployment** of applications and services
- Real-time **analytics and collaboration** capabilities
- High **performance and availability** for business-critical systems
- Optimised **compliance and data-centric security**

The only way for any organisation to effectively achieve these outcomes is through the carefully calibrated management of public and private clouds through a hybrid cloud model. To achieve maximum cost efficiency while seizing new opportunities within the digital economy, every organisation needs to leverage an automated solution for managing every workload within their environment.

In the wake of Covid-19, organisations will also be using hybrid cloud to update systems for ensuring remote access workers remain productive. They'll also be implementing new disaster recover architectures, while using hybrid cloud to reduce risks from rushed deployments of distributed users and BYOD devices across networks.

The evolution towards this model has not happened overnight. In this white paper we will discuss the competing priorities that business leaders need to contend with, and how hybrid cloud can help them prepare for success in the new digital economy.



The new landscape of applications

When it comes to driving business outcomes, an organisation is driven by its applications. Our employees use them to complete their daily tasks, track supply chains, undertake advanced analytics, and serve our customers. Our customers use applications to find products, control services and request assistance – all in real-time.

Because of this, organisations are increasingly becoming organisation developers as much as they are application purchasers. The number of applications deployed by organisations across all industries world-wide has increased by nearly 70% over the past four years reaching an average of 129 apps per organisation¹. That number is set to increase as we become more proficient at rapid development and deployment of applications.

Key to this is the adoption of DevOps practices which enable faster development and testing cycles with enhanced security development. As of 2019, 93% of organisations rated themselves at a moderate stage of DevOps adoption² - a rapid shift in only a few short years.

The types of applications we use to run our organisations has also changed drastically in recent years, with an increasing reliance on cloud services for Software as a Service (SaaS) applications. With three out of four organisations saying nearly all of their applications will be SaaS by the end of 2020³, this presents a rapid shift away from the on-premise applications our businesses typically relied on.

Meanwhile, the growth of cloud SaaS has been tempered by the trend towards migrating many workloads back into private cloud environments. According to a study of digital

leaders and laggards by IDC, 69% of digital leaders have repatriated applications back to in-house infrastructure and private clouds⁴, while only 5% of digital laggards have completed this repatriation.

As we integrate the next generation of applications powered by IoT, AI, machine learning and 5G, the infrastructure demands of our applications will continue to evolve. The way these applications create, collect, store, and analyse data will be markedly different - requiring an entirely different approach to the management of performance, availability, security, and costs.

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75% organisations say nearly all their applications will be **SaaS** by the end of 2020.³

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Coming to terms with cloud economics

We know that most enterprises have hardware utilisation rates that are significantly below 20%⁵. Because of the excess capacity required to handle peak demand, many companies carry up to five times the required hardware, networking, and datacentre space during steady state business cycles.

The advent of public cloud was heralded as a new dawn in the economics of IT infrastructure. It enabled organisations to begin storing and hosting applications and data in the cloud, without having to go through lengthy procurement processes for new hardware. Where IT leaders would previously have to plan their digital transformation around five-year hardware upgrade cycles, they found the freedom to adopt and launch new applications without having to focus on sweating assets for depreciation.

However, many organisations have realised that a cloud-first policy for their workloads comes with an unintended price tag. As they've moved increasing numbers of workloads over to the public cloud, they commonly suffer from sticker shock, with the estimated waste on cloud spend in 2019 coming in between 27-35%.⁶

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Hybrid cloud **lowers infrastructure Total Cost of Ownership (TCO)** by up to 40%.⁷

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Some of the unexpected costs of public cloud include:

- **Ingress costs** – Otherwise known as the costs for signing up, the actual costs are either exceptionally low or free. However, the time it takes to transport data to the public cloud could add up to days and weeks in which critical data is unavailable.
- **Transactional costs** – The majority of public cloud providers will charge a tiny fee every time you access data, which is normally so small as to be negligible. Although when you begin running thousands of analytics jobs in public cloud, for example, transaction costs can quickly balloon while you aren't paying attention.
- **Egress costs** – We often see organisations who have moved all of their data and applications to one public cloud provider, only to be enticed by another provider's offering. This then requires them to create entirely new scripts, which quickly adds up in additional lost time and productivity.

Rather than overspending on cloud resources that end up being drastically underutilised, hybrid cloud enables organisations to send certain workloads and applications to public cloud - while keeping business-critical applications and data in private clouds and on-premise infrastructure where it makes sense for controlling costs.

We know that hybrid cloud deployments can lower an organisation's Total Cost of Ownership of infrastructure by up to 40%⁷. By assessing each application's unique needs and likely cost profile, hybrid cloud enables organisations to deploy each workload where they can balance the competing priorities of cost, performance, and security.

Controlling data for compliance and security

Compliance obligations for data security and privacy are growing every year. Even if your business isn't in a highly regulated industry such as banking, finance or healthcare, there are new regulatory considerations to contend with – particularly if your business is operating at all in international markets and selling to overseas customers.

For example, the EU's General Data Protection Regulation (GDPR) governs the strict control of EU citizens' private data and is now considered the yard stick in regulating strict data governance requirements for organisations storing data. In Australia, they have seen the introduction of data privacy regulations such as the Notifiable Data Breach scheme, and New Zealand is currently in the process of developing similar privacy and security regulations.

Regulatory compliance requires organisations to understand exactly where their data resides, and in many cases can dictate whether sensitive data can reside in public cloud at all. There are also increasing issues of data sovereignty, in which certain datasets cannot reside outside of the country in which they are regulated for.



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62% of organisations say their **security infrastructure has gaps** that allow attackers to penetrate its defences.⁷

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We also know that cybersecurity risks are increasing rapidly, with new forms of threats appearing each year. As more of our applications and devices spread out across cloud networks, we are creating a larger attack surface for criminals to exploit. This is what the Ponemon Institute have called the IT Security Gap⁸, with 62% of organisations saying their security infrastructure has gaps that allow attackers to penetrate its defences.

The costs for ignoring our security weaknesses has never been higher, with the average costs of a data breach or security incident increasing by more than 72% in the last five years to a global average of \$13 million per company⁹.

Public cloud isn't inherently less secure than private clouds or on-premise infrastructure. In fact, few organisations could match the security budgets of giant public cloud providers.

The issue is knowing precisely where your data resides and who has access to it. This is where hybrid cloud allows improved data governance by ensuring that sensitive and regulated datasets can remain in private clouds where organisations have complete visibility and control.

At the same time, organisations are free to use public cloud where they can balance risks against the cost and agility benefits. There is no one-size-fits-all solution for improving data governance and security, which is why a hybrid cloud model is vital for deploying each workload where it is safest to do so.

This is particularly the case as result of Covid-19, where organisations will use a hybrid cloud model to deploy new disaster recovery architectures given that their primary architecture and network use has dramatically changed. They'll also use hybrid cloud to reduce risks by reviewing the security of the new architecture from rushed deployments to incorporate distributed users and BYOD devices across networks.

Removing the complexity of hybrid cloud

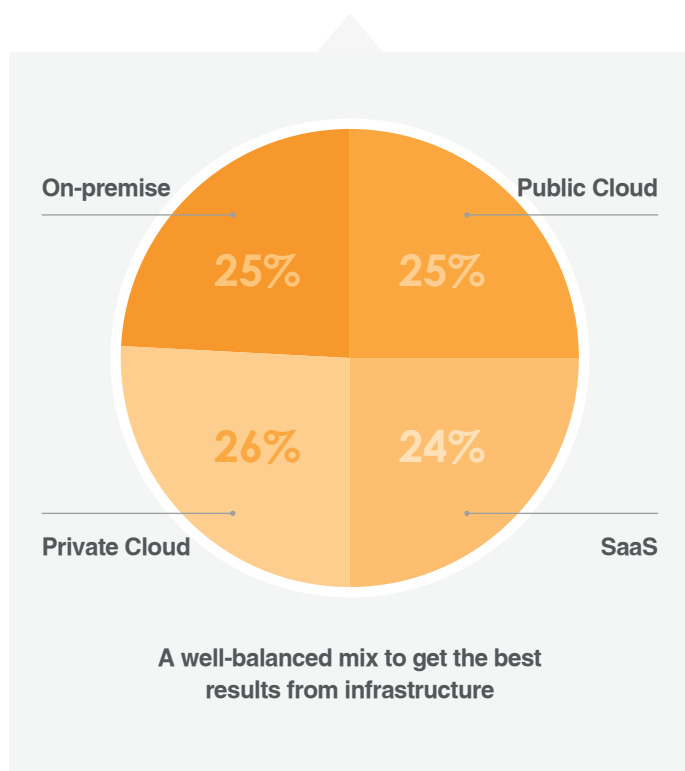
According to research from HPE and IDC, digitally mature organisations use a well-balanced mix of on-premise (25%), public cloud (25%), private cloud (26%) and SaaS (24%) to achieve the best results from their infrastructure¹⁰. However, our IT teams often lack either the expertise or resources to manage these dynamic new environments.

This can lead to an over reliance on public cloud vendors or on-premise hardware vendors – all of whom will make the case for hosting every workload on their solution. Yet we know hybrid cloud achieves the best results when we can approach each application's environment on a case by case basis.

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Hybrid cloud achieves the best results when we can approach each application's environment on a case by case basis.

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Ideally, a hybrid cloud environment should free your IT team to focus on more value-added strategic business tasks. By creating a seamless blend of infrastructure, you can take advantage of:

- The **cost-effective scalability** of public cloud
- The **secure control** and performance of private cloud
- Realising the **complete lifetime value** of legacy assets
- Enabling the **most efficient placement** of workloads
- Freeing up IT staff to focus on **improving core business processes**

With the right partner and platform to help your organisation control the management of a hybrid cloud model, you should be able to create the perfectly optimised environment for controlling the costs, security, and performance of each application. This model should also enable you to seamlessly transition applications and data from one environment to the other through a single pane of glass.

Lexel is your partner on the journey to hybrid cloud

Every business has unique infrastructure and workload deployment requirements. At Lexel, we're committed to helping you select and implement the best cloud solutions for your business to create a truly integrated IT environment.

We provide you with an open choice of hybrid cloud solutions that allow you to:

- achieve seamless integration between public and private clouds
- automate your on-premises infrastructure
- connect to modern public cloud services
- lower your TCO by up to 40%¹¹
- stay protected with enhanced security layers

Our hybrid cloud professionals have the expertise and experience to help you build the ideal mix of hybrid cloud to match with your existing infrastructure in a hybrid IT approach. Through our partnership with Hewlett Packard Enterprise (HPE), we bring the perfect blend of hardware, platform, and services you need together in a tailored model.

Our team will help you remove the need to manage multiple subscriptions and cloud configurations to ensure that every workload is in the right place – for the right balance of price, performance, and protection.

With Lexel and HPE as your hybrid cloud partners, we can work with you to create a hybrid cloud solution that meets your needs for efficiency and control today, and the scalable performance you need in the future.

Get in touch with us today to begin taking your journey toward hybrid cloud.

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Lexel is a New Zealand owned provider of ICT services and solutions to business. We focus on maximising business performance by using industry leading expertise and solutions to streamline IT infrastructure. Thirty years in the IT business, Lexel is a known and trusted partner.

Lexel specialise in providing solution consulting, infrastructure design, implementation, project management, outsourcing, support services and procurement. To deliver this wide range of services, Lexel Systems has partnered with the main technology providers in NZ and have secured the highest level of certifications possible with each of these partners.



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