

Accelerate Time-to-Market with Hybrid Cloud



in partnership with





Introduction

Industry 4.0 is pressuring enterprises to adopt new technological solutions simply to remain competitive. Organisations committed to innovation that are embracing new technologies will prosper in this brave new world.

But if there's one technology that has penetrated the market more than any other, it has to be cloud.

Cloud technology has become pervasive, with enterprises adopting cloud for myriad reasons, including to:

1. Promote new business models
2. Enhance data collection/processing
3. Extract greater value from data
4. Overcome demanding workloads

Whether private or public cloud, these enterprises have gained an upper hand and a real competitive advantage in their market. But there are challenges, elements that hold back enterprises from achieving their full potential when they embrace cloud. The answer is to go beyond public or private cloud, and to embrace the hybrid cloud solution.



**IN THIS WHITE PAPER,
WE'RE GOING TO LOOK AT:**

**Why enterprises need to
accelerate time-to-market**

**How public and private cloud
are holding enterprises back**

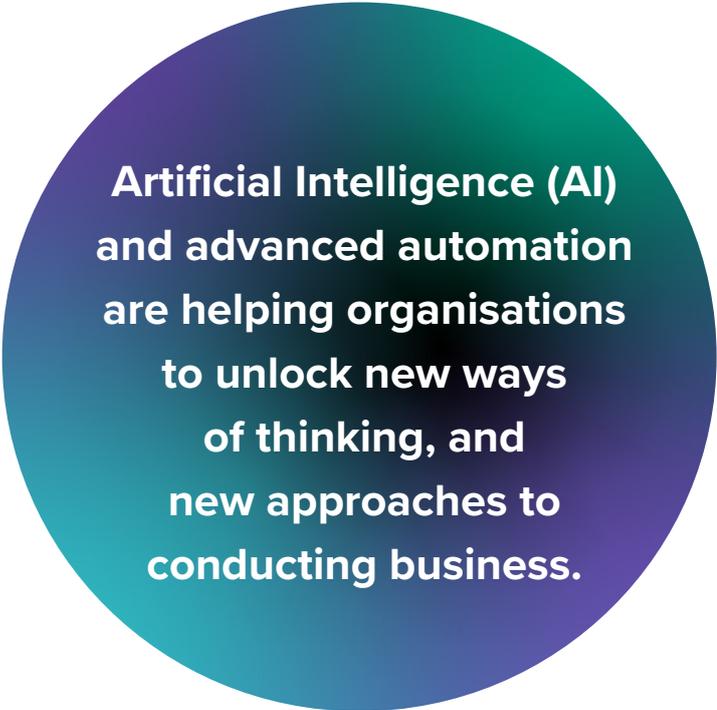
Hybrid cloud and its benefits

**Case studies of successful
hybrid cloud adoption**



Accelerating Time-to-Market Is Mission-Critical

We live in an age of disruption. While advanced analytics and the Internet of Things has so far driven technological progress, the next phase of disruption is now underway.



Artificial Intelligence (AI) and advanced automation are helping organisations to unlock new ways of thinking, and new approaches to conducting business.

What each of these disruptive technologies have in common is data. Data fuels automation, AI, analytics and the IoT, with enterprises utilising vast quantities of data to make nuanced decisions about how to proceed quickly.

These four disruptive technologies lie at the heart of this acceleration of time-to-market.

Enterprises that aim to remain competitive know that they require more data, the computing power to process it, and the scalability to deliver effective solutions – fast. Cloud has a role to play, but not how it's currently being used...





Public and Private Cloud Hold Enterprises Back

It's true: enterprises are being held back from fulfilling their true potential, despite embracing the cloud. That's because many enterprises choose to adopt either public or private cloud, and each come with a unique set of challenges.

First, let's clarify the benefits of each.

With public cloud, enterprises enjoy a simple approach to acquiring and managing infrastructure. It is therefore the fastest way to scale infrastructure to unlock new technologies like AI and blockchain. A recent survey conducted in partnership with Dell Technologies also cited ease of management (68% of respondents), time-to-market/scalability (68%), and cost reduction (59%) as the main reasons for adopting public cloud.

Meanwhile, enterprises tend to adopt private cloud when they have more stringent security requirements. This makes sense, as Dell Technologies' survey respondents cited security and compliance as the top reason for adopting private cloud. Enterprises can also enjoy greater control with private cloud, but they are limited by less scalability and reduced access to new services.

But while each has its benefits, there are significant challenges to both public and private clouds. Enterprises will have to overcome these challenges to unlock their true potential.



PUBLIC CLOUD CHALLENGES



Security

Access management, insecure APIs and human error can all contribute to security challenges with public cloud. Governance is also an issue.

Performance

For many enterprises, public cloud performance fails to meet expectations. Network latency, performance variations between providers, and unexpected downtimes are all problems enterprises face.

Cost & Billing

Training, migration and management all contribute to high costs when it comes to public cloud. IT staff must master a range of cloud-related tools and policies. Sprawl and unused/zombie files can also lead to higher costs.



PRIVATE CLOUD CHALLENGES

High Ongoing Costs

Compared to public cloud, private cloud has high ongoing costs. Hardware, software, and IT staff are necessary investments, but a datacentre is also a heavy expense, with rent, power and cooling all contributing to large fees.

Limited Expertise with Private Cloud Stack

It isn't often that IT staff have the necessary expertise to manage a private cloud solution, as it requires the integration of the entire stack across hardware, software, protocols and APIs from multiple vendors. But pre-installed cloud solutions (including the Dell EMC VxRail hyperconverged platform) can help offset this.

Ability to Protect Data

Unlike public cloud, it is difficult to guarantee fool-proof protection with private cloud. The scheduling and maintenance of snapshots, clones, backups, archives and disaster recovery all rely on IT staff, as well as how data should be tiered.

It makes it more difficult to protect data from accidental deletion – though it is better protected from outsiders.

Limited Flexibility

When you adopt public cloud, you also adopt access to the vast resources and flexibility of public cloud vendors such as AWS. But private cloud users don't have this access, with enterprises citing limited resources, expertise and value-added services as challenges.

Lack of Rapid Scalability

Public cloud is renowned for its scalability, but enterprises can't buy extra servers, storage and hardware – or the space to store it – as easily as vendors. While some newer private cloud solutions seek to address this flaw, it is still difficult to scale as quickly to help enterprises meet workload requirements.



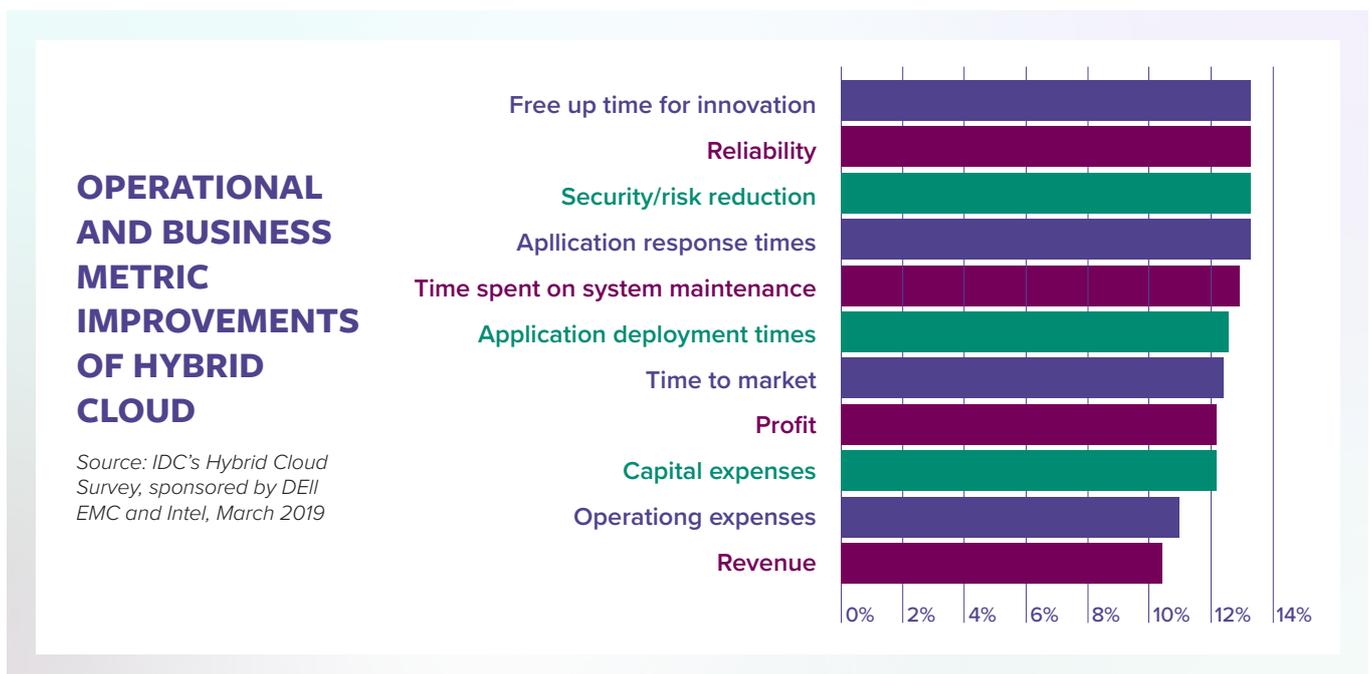
How the Hybrid Cloud Empowers Enterprises

Enterprises always need to fulfil a range of requirements. In one scenario, they will need to scale quickly to meet extra demand. In another, they will need a stack that adheres to a variety of compliance and security requirements. The trouble is that they need to fulfil these requirements simultaneously, and private and public cloud solutions cannot help separately. But the hybrid cloud can.

The hybrid cloud is a combination of both on-premises, private cloud and third-party, public cloud services. It works by sharing applications and data across the entire cloud portfolio.

This mixture between private and public clouds that we call ‘hybrid cloud’ brings the best of both worlds together. For instance, when enterprises require two simultaneous capabilities to meet compliance and business requirements, hybrid cloud can allow for quick scalability in the public cloud and for sensitive data to be stored in the private cloud. Therefore, it helps to address businesses’ top cloud challenges and delivers substantial metric improvements.

The graph below demonstrates some of these major operational improvements that enterprises cite after adopting hybrid cloud.





Ultimately, the hybrid cloud helps to empower enterprises because it eliminates the glaring challenges that come with public and private cloud.

Above all, the hybrid cloud helps enterprises to accelerate time-to-market. Enterprises enjoy a time reduction of 12.5% in average application deployment, and a reduction of 12.3% in time-to-market for new applications.

This is why hybrid cloud is the best way for enterprises to accelerate time-to-market and maintain a competitive edge in an age of rapid digital change.



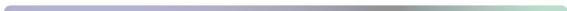
THE HYBRID CLOUD:



1. Gives enterprises the flexibility to deploy workloads in the best possible platform depending on compliance requirements, and best possible location depending on regulation changes.



2. Reduces risk and improves confidence in security when it comes to protecting enterprise assets.



3. Optimises costs by enabling enterprises to scale up quickly without upgrading their hardware or renting more datacentre space – on average, hybrid cloud users witness a 5% drop in annual infrastructure expenses.



4. Provides opportunity for innovation by allowing enterprises to scale rapidly and expand usage beyond predictable workloads, such as incorporating AI/ML and serverless computing, among other things.





CASE STUDY: Implementing Hybrid Cloud at Network Rail

The UK Government unveiled how it had implemented a hybrid cloud solution to better meet its commitments to customers. With hybrid cloud, Network Rail can continue to utilise the private cloud for most of its legacy technologies on the one hand, and develop new systems faster using the public cloud on the other.

Before adopting hybrid cloud, Network Rail had a sprawling, complicated IT estate with over 1,000 outdated applications, some of which were 25 years or older.

So not only did Network Rail have to overcome these startling legacy issues, they also had to overcome obstacles in technology, skills, processes and governance. That meant upgrading their existing technologies and identifying Platform as a Service (PaaS) and Software as a Service (SaaS) options that better met Network Rail's needs. All the while, Network Rail made sure that whatever technologies it improved or introduced would have integration capabilities.

Hybrid cloud provided the crucial bridge Network Rail required to move from a legacy infrastructure to a future-proof solution.

But wherever legacy systems are still required, private cloud is proving vital in storing them in isolation until a better solution can be found. Public cloud, meanwhile, is allowing Network Rail to innovate faster and bring better solutions to the forefront. In the end, this will help to improve locomotive transport in the UK.



Source: [Gov.uk](https://www.gov.uk)



CASE STUDY: Bank Leumi Moves to Hybrid Cloud

Founded in 1902, Bank Leumi offers corporate banking services to clients internationally. It has 200 branches and 11,000 employees worldwide. As you can imagine, Bank Leumi therefore had a vast legacy infrastructure and was unable to innovate and build like start-ups.

But in a world where competition, efficiency and time-to-market can make or break even the most established companies, Bank Leumi knew it needed a new IT solution to maintain its edge.

That's why Bank Leumi moved to the hybrid cloud in 2017. This move to IT-as-a-service meant Bank Leumi could make smarter investments in IT infrastructure that deliver real value, instead of spending needlessly on maintenance and on legacy infrastructure.

The hybrid cloud has drastically improved Bank Leumi's capabilities. Whereas before establishing a new datacentre could take up to two years, now Bank Leumi can deliver this innovation in just three months.

Likewise, hybrid cloud's faster infrastructure means Bank Leumi can deliver productions, establish new environments not in weeks but in hours, and for a fraction of the cost. On the customer side, this accelerated time-to-market and overall speed is being leveraged to ensure customers are onboarded in as little as eight minutes.

The hybrid cloud is helping Bank Leumi to deliver new services faster – vital for the future success of the bank.



Listen to the latest podcasts in the Luminaries series from Dell Technologies and find out more how technology can help drive human progress.

Source: [Dell Customer Stories](#)

Ready to Accelerate Your Time-to-Market with Hybrid Cloud?

Only the hybrid cloud can help enterprises like yours to bring better solutions to market, faster. In an age where your competitors are beginning to see the potential of hybrid cloud, you can't afford to be left behind.



To help you choose the right cloud solution we have a range of resources available [on our website](#).

Alternatively, connect with Dell Technologies, whose hybrid cloud infrastructure in partnership with VMware delivers effective solutions to major international corporations.

