

business **nbn**[®]

In the cloud and on the ground:

Deploying the right service
for your business



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Opportunities in the cloud

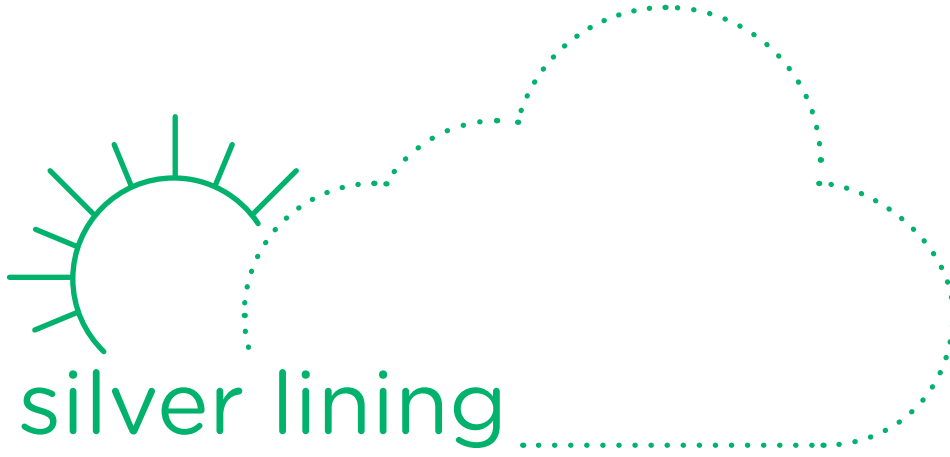
As organisations look to the cloud to power digital transformation and drive efficiencies, what's on – or in – the ground matters more than ever.

The adoption of cloud-based services has gone hand-in-hand with digital transformation efforts, and is helping better align IT remits with business strategies, needs and goals.

This shift has helped bolster the case for cloud operating models as key to achieving digital transformation.

Cloud services such as Software-as-a-Service (SaaS), Platform-as-a-Service (PaaS) and Infrastructure-as-a-Service (IaaS) have changed data management and operating models for businesses that might have previously relied on large capital investment in hardware managed on-site, or manual processes.





The silver lining

The move to cloud-based operating models has the potential to offer many benefits for organisations of all sizes.

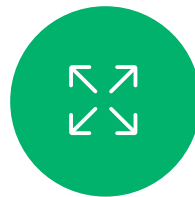
Top five technology drivers of cloud services adoption in Australia:¹



Cost savings: Trading capital expenditure for operating expenditure



Agility: Ability to access resources as required for development and experimentation



Elasticity: Being able to instantly scale resources up and down



Storage: Increase data storage capacity of businesses



Functionality: Breadth of access to new capabilities, services and features



Who is buying cloud services in Australia?²

81%

of businesses
>200 employees

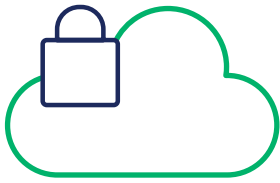
76%

of businesses
20-199 employees

Types of cloud models and how they differ³

Cloud technology has evolved over the years, and organisations have choices between four primary service models including: private cloud (on-premises), public cloud, hybrid cloud and multicloud models to adopt cloud-based services.

Each cloud operating model can have pros and cons depending on the unique needs of a business. Understanding the differences is key before implementing a cloud migration strategy.



Private cloud

This is a cloud environment dedicated to a single end-user organisation. Traditionally this was hosted and run on-premises, but increasingly organisations are using private clouds located off-premises in vendor-owned data centres.

Private clouds can bring a range of benefits including increased capacity and more transparent infrastructure, and might be preferred due to security and compliance requirements.



Public cloud

This is an alternative to traditional on-premises IT architectures, where a third-party provider hosts scalable, on-demand IT resources and delivers them over the internet. Customers 'rent' a portion of the provider's hardware, software or supporting infrastructure.

Public clouds can offer instant access to scalable, pay-as-you-use services such as SaaS, PaaS and IaaS.



Multicloud

Multicloud enables organisations to leverage cloud services on multiple public cloud providers.⁴

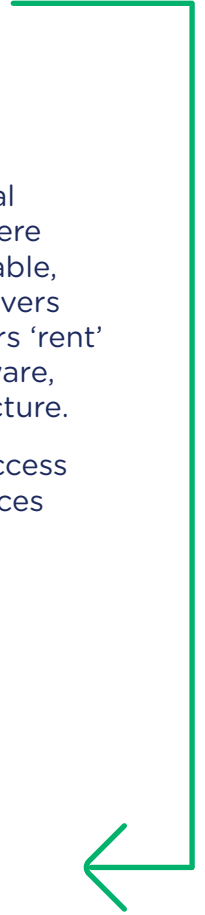
They can occur as various departments and lines of business make independent software solutions, out of strategic intent to reduce risk or seek best-in-class feature availability across platforms, or as a response to regulatory requirements.



Hybrid cloud

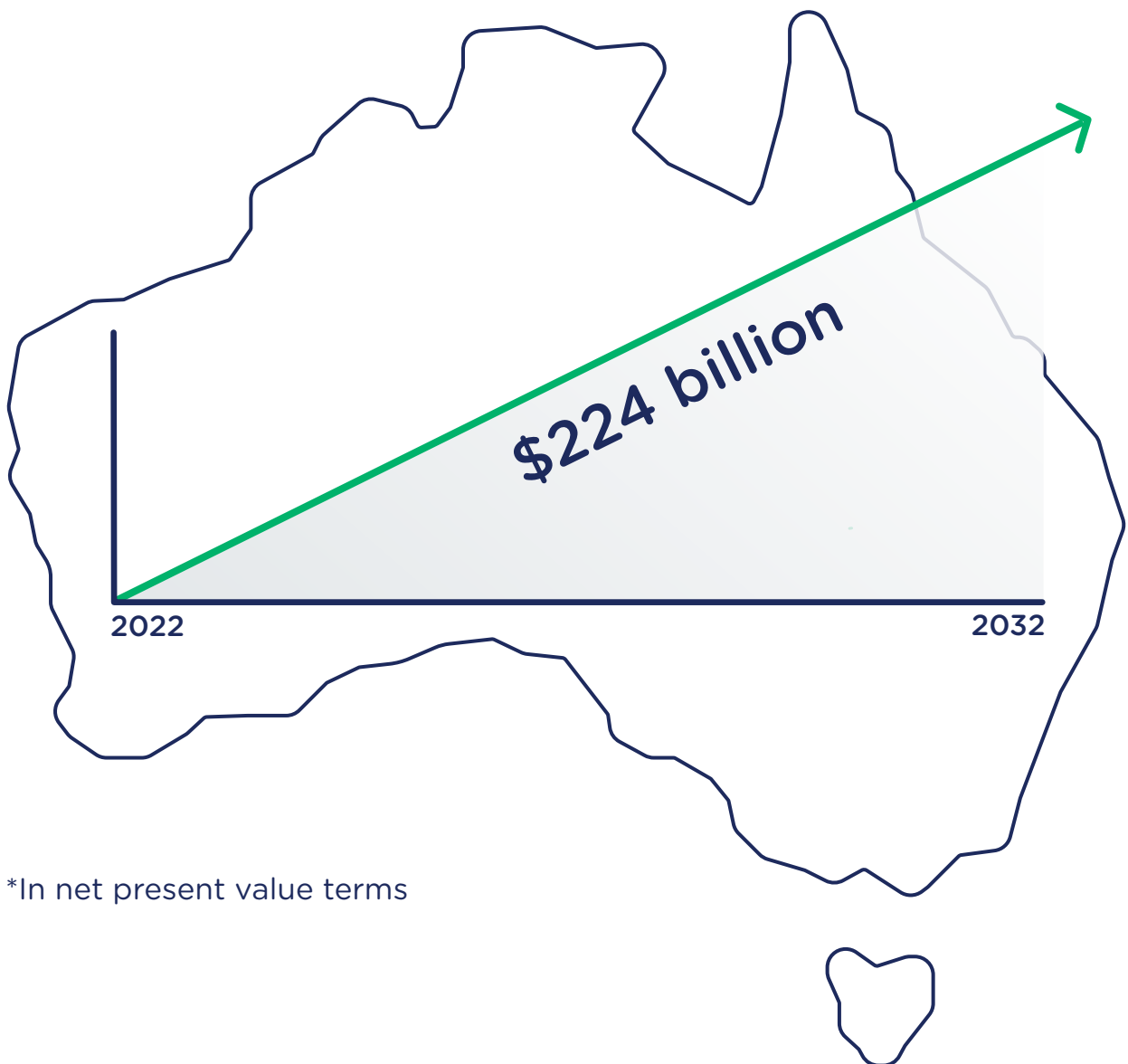
As the name suggests, this model is a mixed computing, storage and services environment made up of on-premises infrastructure, private cloud services and a public cloud, with orchestration and integration between the various platforms.

Hybrid clouds can offer the benefits of both public and private clouds, and can provide organisations with agility to adapt and change direction quickly. For example, a business might decide to keep mission-critical applications or sensitive data on premises, while tapping into public cloud SaaS applications.



Australia's SaaS potential

The direct benefit potential of moving to a SaaS solution compared to Australia's current software capability is \$224 billion*⁵



*In net present value terms

Hybrid-cloud, multicloud or both?

As adoption of cloud-based services increases and new offerings become available, organisations might consider adopting a multicloud model.

What makes multicloud different?

Hybrid cloud integrates private and public cloud environments, with all cloud assets sharing a common cloud infrastructure platform, network and management tools.

Multicloud refers to an overarching strategy of implementing and managing cloud services, rather than specifically referring to the underlying technology portfolio. While multicloud models can be complex, they can be leveraged, along with hybrid models, to gain greater agility and may help assist in integrating legacy systems.²

Which is best?

The choice of cloud model is dependent on the needs and resources of each organisation. Increasingly, organisations are embracing hybrid multicloud to take advantage of cloud agility and flexibility, while avoiding undue pressure on resources and teams to develop skills and knowledge in different cloud environments simultaneously, as well as lock-in to a single cloud vendor.³

Organisations are embracing hybrid and multi-cloud

95%

of new digital workloads will be deployed on cloud-native platforms by 2025.⁶

81%

of organisations are working with two or more cloud providers⁷

66%

of spending on application software will be directed to cloud technologies in 2025.⁸

Enabling cloud with what's in the ground

Digital transformation has most organisations looking to the cloud, and considerations for how your ICT stack will support your cloud strategy are influenced by the networking foundations that support it.

The foundation of a cloud operating model

Access to cloud services and adoption of cloud operating models are becoming key pathways for businesses looking to accelerate their digital transformation journeys.

However, extracting full value from applications and services can be dependent on the reliability, speed and bandwidth of the supplied internet infrastructure. Combined with remote working on the cloud, security interfaces such as a VPN can put increased demands on the corporate network, as the increased activity is funnelled through.

Therefore, **nbn** recommends that before businesses get too stuck in the cloud(s), they carefully consider the important role of internet connectivity in delivering cloud-based solutions.



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business **nbn** plans are available to eligible businesses across Australia through service providers with network feature options designed specifically for the needs of modern businesses, and can help support cloud-based solutions with features such as:

High upload and download speeds

Cloud computing requires an increase in data that is pushed out into the cloud, as well as the pull of downloads. Particularly with public, hybrid and multicloud models, users will increase the volume and frequency of downloading and uploading data for their operations, with an expectation of fast response.[^]

Business grade support services

When organisations rely on cloud-based and services, reducing downtime can help them to avoid revenue loss or reputational damage. Business-grade support, like that provided by business **nbn** services to service providers, is designed for faster issue resolution and reduced risk of disruption and downtime.

[^]Your experience, including the speeds actually achieved over the nbn network, depends on the nbn access network technology and configuration over which services are delivered to your premises, whether you are using the internet during the busy period, and some factors outside nbn's control (like your equipment quality, software, broadband plan, signal reception and how your service provider designs its network). For business nbn Enterprise Ethernet, if your provider has not selected Class of Service - High, the speeds you experience may be affected by contention on the nbn network, particularly in busy periods. nbn Satellite end customers may also experience latency.

Top down and bottom up

Cloud operating models are helping organisations move the dial on their digital transformation journeys.

Which cloud model to adopt is dependent on the needs and resources of the organisation.

Just as important is the choice of network as a foundation for a successful transition to the cloud.

Cloud adoption starts with a holistic view of the organisation, along with its current and future needs. It's important to start with business requirements, before moving to evaluate the number of different cloud services provided by a growing number of vendors.



Five key questions

Gartner recommends investigating these aspects as a starting point to finding the right cloud strategy for your business:⁹

1

Where and how should the organisation consume cloud computing services?

Examine use cases to understand factors such as the types of applications needed, associated data needs and constraints, and how the application might integrate with other systems.

2

What are the risks of cloud adoption?

Comparing potential benefits to potential risks for use cases can help organisations land on the right mix of cloud operating models.

3

How will the organisation access, secure, manage, integrate and govern across hybrid environments?

Hybrid cloud environments can raise questions around governance, security and data management. Exploring these issues and underlying dependencies can help refine your approach.

5

How should the existing data centre and infrastructure approaches and technologies change?

Cloud operating models might require more flexibility and agility than traditional infrastructure approaches can accommodate.

4

Where does cloud computing fit with application strategy and architecture?

Consider when and how to migrate existing applications to the cloud, as well as whether some apps need to be modified for a cloud environment.



A best-fit network

Network connectivity and infrastructure considerations need to be part of these initial strategic conversations. The network plan should be customised and tailored to the unique requirements of the organisation based on responses to the above questions.

Factors including speed, bandwidth, service and support, and budget need to be considered to provide the best connectivity solution to match the needs of your cloud strategy with the capability and capacity of the network.

With business **nbn** wholesale products and services and a fibre-based connection now available to the vast majority of Australian businesses, organisations can feel empowered to find a network solution through their service provider that helps enable their ambitions to adopt cloud computing as part of their digital transformation strategy.*

*business nbn is not available on the nbn Fixed Wireless network. Not all providers offer plans based on the full range of wholesale business nbn products, product features and services. Availability of wholesale business nbn products, product features and services depends on an end customer's access technology and area. Ask your preferred provider if they offer plans based on these wholesale business nbn products, product features and services in your area.

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