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CLOUD SERVICES

DELLTechnologies

We're in business to power your business.

Australia's most recommended Hybrid IT solutions provider

macquariecloudservices.com

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Preface

Macquarie Cloud Services' multi-cloud hosting solutions offer flexibility and scalability for businesses across Australia. We specialize in delivering private cloud, public cloud, colocation, and managed dedicated servers.

This eGuide will help you understand the best practices on cloud services and solutions delivered by Macquarie, based on actual field experience transitioning enterprise IT services to cloud-based environment. Whether you are still planning or ready to implement your long-term hybrid cloud strategy, with this eGuide, co-published by Dell Technologies and Macquarie Telecom, you can evaluate how partnering with Macquarie can help you access industry leading IT capabilities that can easily scale as your business grows. With situation analysis and case studies, this eBook will help you acquire knowledge of the real-world scenarios from perspectives of operations, security, application, and deployment.

We future-proof businesses!

Our goal is to serve your IT needs of today and your demands for tomorrow. Our private and public cloud portfolio, complete with Colocation and Hosting, forms a future proofed IT strategy for ambitious businesses across Australia.

The sunny side of Australia's cloud journey

In Australia, cloud services are emerging as the new catalyzer to accelerate businesses while bringing in more innovative and dynamic ways of working, and unlocking the next wave of technologies such as AI, IoT and Robotics.

Despite this upward surge in the adoption, many businesses still grapple with challenges in transitioning, financial reporting, workforce, and cybersecurity.

Trends in enterprise adoption of cloud services include building new applications, migrating existing applications, and moving business-critical applications.

Owing to the growth of hybrid cloud adoption in Australian, the IT services revenue is forecast to grow from **$20 billion** during **2019** to **$24 billion** by **2023**[1].

Avoiding CAPEX by blending Colocation and IaaS

The upside of do-it-yourself (DIY) private cloud is predictability and low cost.

The problem!

DIY private cloud doesn't account for the potential issue of capacity requirements. These are often impossible to predict, needs optimum attention from the management and can significantly impact ongoing projects.

What if you could simply extend your own infrastructure logically, for a variable amount of time, for the capacity you need now without re-inventing the wheel? Whilst that sounds like an ideal solution, the main challenge when extending out to a native cloud provider is - network.

Hybrid IT – Multi-cloud implementation makes the final transition away from self-managed, customer-owned infrastructure very simple.

What may start as a complementary volume to supplement your existing capacity can, replace your entire stack. At Macquarie Cloud Services, we make it easier for you to migrate workloads and data. We understand that you don't want to be chained to one provider forever, so whilst we hope you stay around, the way we build, and bill clouds makes it as easy to leave as it was to come.

INTRA DC
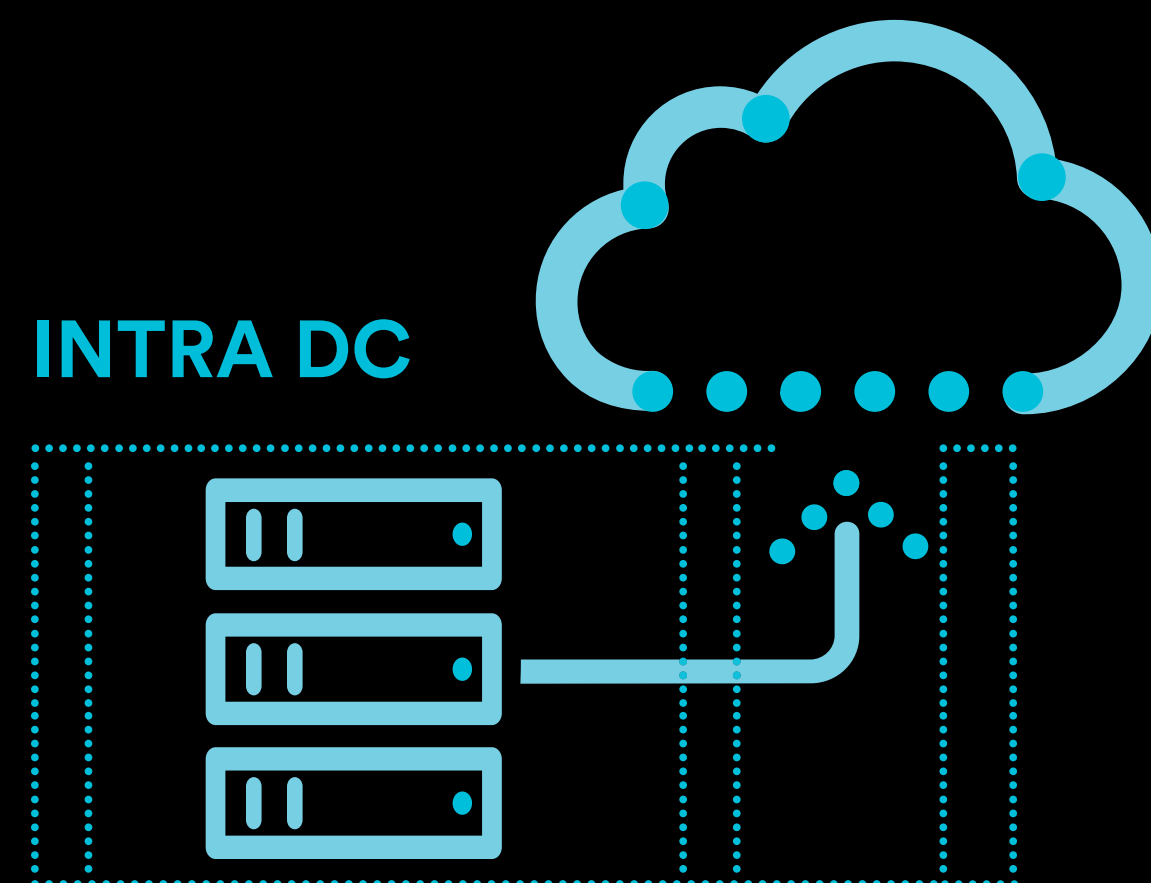
Cloud in the Datacentre

An On-Premise and IaaS blend

At Macquarie Cloud Services we classify 3rd party data centre footprints and customer on-premise infrastructure in a similar, but not same light

Why you ask? With the advent of high-bandwidth, inter-datacentre network providers are often able to offer short (month to month) contracts that businesses can now procure rapidly, and economically. Inter DC bandwidth, gives businesses "LAN-like" experience at a palatable cost between most of the major data centres to facilitate a hybrid IT outcome via someone like Megaport.

On premise has one fundamental difference. Chances are businesses aren't housing a high bandwidth carrier interconnect or point of presence. This means they're now subject to an entirely different conundrum.

Network services are less flexible, lower speed links at substantially higher costs. So, what does that mean for hybrid IT adoption?

It means businesses have to pick their battles to ensure end user experience is, if not improved, at least constant, and implementation is a step in the right direction, rather than another cleanup project that they need to add on the list.

Value 'as a service'

Specific on-premise use case and how some very common problems can be solved.

On PREM -> CLOUD
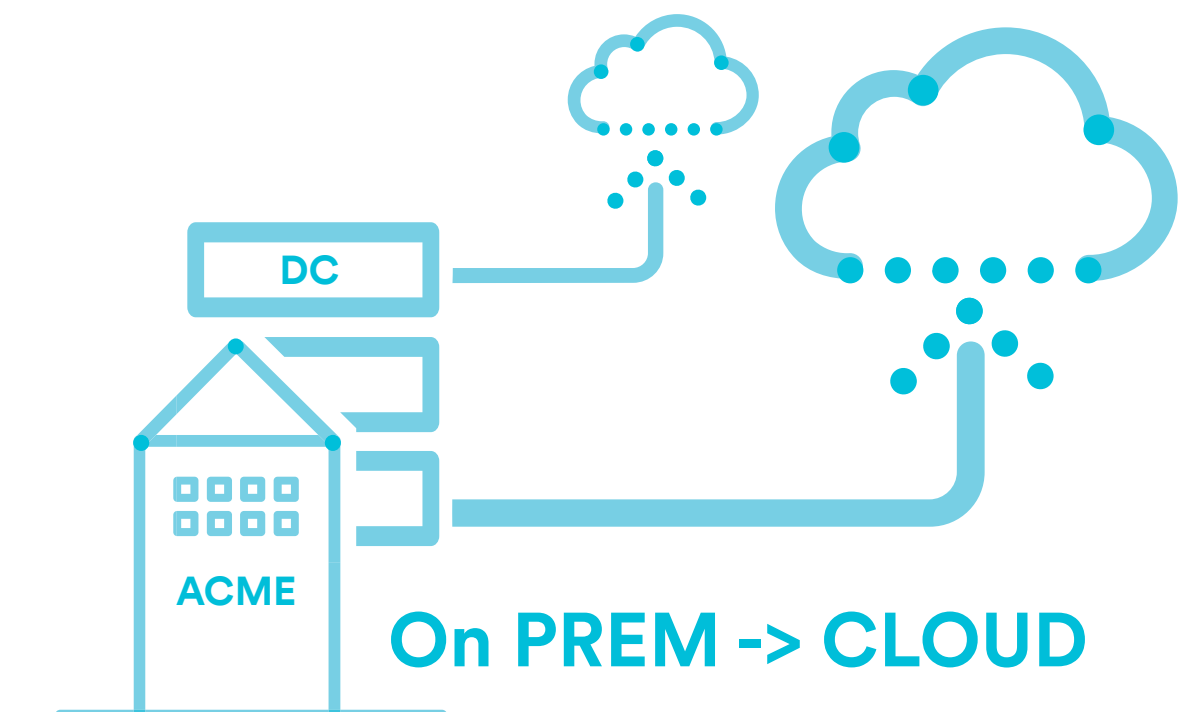
What customers get?

Businesses can pigeonhole this type of solution as Mode 1 Hybrid - A way of extending the useful life of existing assets whilst removing the constraints of capacity which are the most common negative side effects of in-house/on-prem infrastructure deployments.

Hybrid Cloud Networking

Cloud Services Gateways and their relevance in a hybrid cloud world
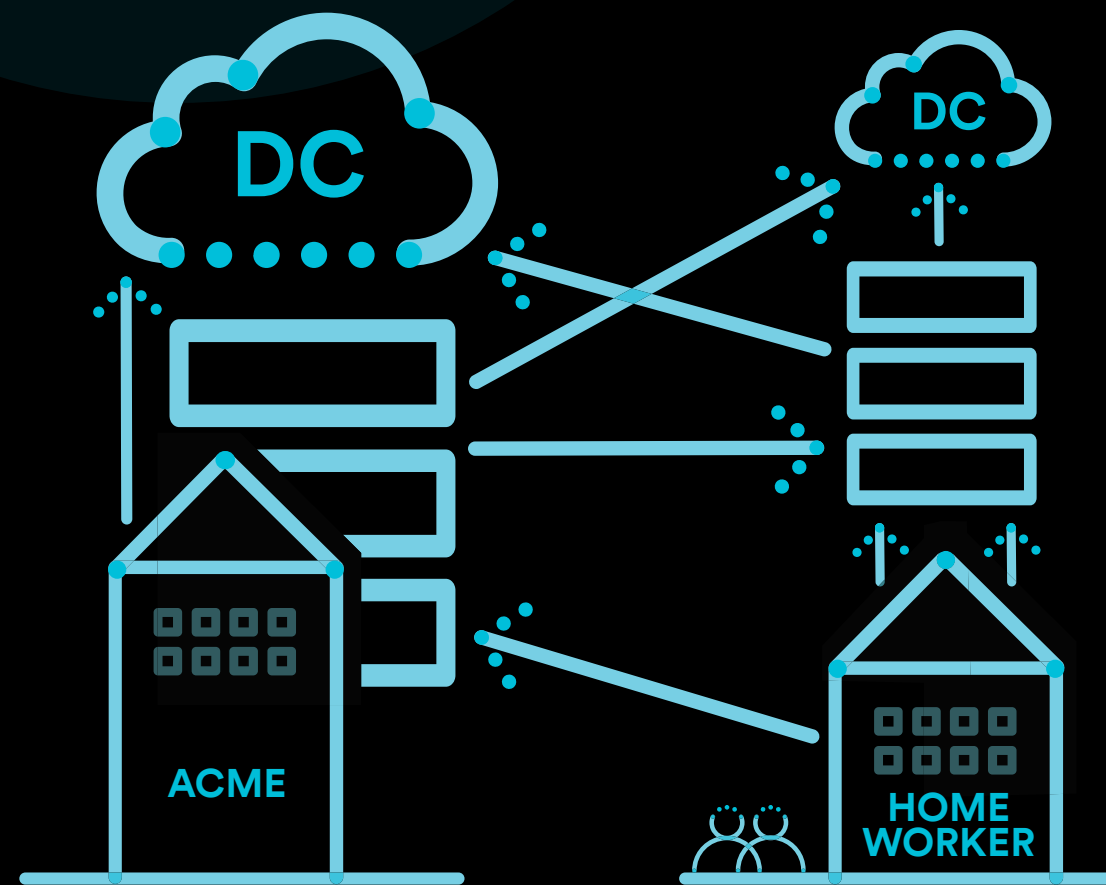
MULTI CLOUD, HYBRID WAN

Having worked with a number of our clients and prospects, finding the right blend of cloud based products and services to incorporate into the larger technology solution, the following considerations are critical.

1. Internet

The true backbone and facilitator of cloud. The main downside however is cost. Especially in Australia, internet is still really expensive. The trick with internet is to use it as little as possible to optimise costs. Building highly resilient multi-site

networks is expensive in the context of networking and security infrastructure. That's one of the reasons cloud services are so appealing.

2. Flexibility and cost

Internet services and non-traditional network providers, many with native SD-WAN implementations, mean that not only can the contracts be flexible in the context of term, but the underlying technology is capable of rapid scale up or down. This can facilitate more transient, project based requirements or in some cases massive fluctuations in throughput requirements that may be caused by expected or unexpected circumstances. Even more commonly, massive customer data migrations have a huge networking requirement as workloads are shifted between clouds. Rapidly scalable, hybrid-cloud networking has a huge role to play here.

3. Hybrid Cloud adoption & Networking Skills

A massive swing towards SaaS, PaaS and hosted workloads has simplified the user/consumer side of the equation but has pushed the complexities to the cloud and network providers as they manage ever growing volumes of traffic riddled with ever evolving security threats and challenges. A clear understanding of how to reduce risk, maintain performance and set up for success both technically and commercially is very critical.

4. Security and Resilience

As hybrid-cloud adoption has become the norm, we have had to find ways to consolidate a security management and monitoring capability across multiple infrastructure stacks. This means that all deployments need to be thought through and implemented with a security conscious mindset. In doing so, businesses are well served to establish foundational networking capabilities, that can be scaled up when needed rather than provisioned and configured.

5. Evolution of the WAN

Wide area networks have been going through their own evolution over the last decade based largely on cloud adoption. We've seen 80% of traffic now being bound for the internet in contrast to the corporate network. Rather than aggregating all internet bound traffic via a WAN and then through head office or datacentre firewalls, networks are more web centric now offering more direct paths to SaaS and PaaS providers. The success of this deployment model is based on centralised access policy management, allowing network administrators to have granular controls and visibility of traffic flows, balancing end user experience and security.

What customers get?

Macquarie Cloud Services has developed a range of networking products including Cloud Services Gateway (CSG) portfolio to facilitate business grade hybrid-cloud networking capabilities.

MCS networking product development can make your hybrid cloud adoption affordable, secure and flexible.

Hybrid clouds are the way to go. With different applications and workloads come different needs. Often running workloads across the public cloud, private cloud or on-premise is the best way to maximise IT investment and safeguard your unique environment. Macquarie Cloud Services is Australia's most recommended cloud provider. We specialise in custom built hybrid multi-cloud solutions underpinned by our industry-leading storage partner Dell Technologies. Dell Technologies is fully integrated into the Macquarie Cloud Environment for enterprise grade storage solutions, which are designed, built and maintained by Dell Technologies trained engineers. Together we're better.

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