Selecting a Cloud Service Provider: Which one is Right for You?

A White paper by Frost & Sullivan in collaboration with Macquarie Telecom

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SELECTING A CLOUD SERVICE PROVIDER: WHICH ONE IS RIGHT FOR YOU?

Introduction

Australia leads the Asia Pacific region in adoption of cloud computing, with well over 40% of local organisations now using the cloud for delivery of IT services. The business benefits of cloud adoption are increasingly understood by Australian organisations, with a growing number of case studies of businesses that have achieved cost savings, greater productivity and improved agility and speed to market through the adoption of cloud services.

The growth potential of the Australian cloud computing market has attracted a range of market participants, including both local and global service providers. This has created a complicated service provider landscape with clients faced with a broad range of potential cloud service vendors. Often the marketing messages of vendors can make it challenging for IT decision-makers to understand and appreciate the differences between providers and select the right one for their individual business needs.

This white paper assesses the Australia cloud computing market, highlights the complex service provider landscape and provides an outline of the main considerations in selecting a cloud service provider.

What is Cloud Computing?

Cloud computing can be defined as a flexible and scalable IT environment in which service providers leverage virtualisation technologies to create and distribute computing resources to customers on an as-needed basis, through private or public networks, and where the service is priced on a pay-as-you-use basis. Figure 1 summarises the key characteristics of cloud computing. When organisations adopt cloud computing they are able to focus their resources and energies on their core business rather than on IT services. Organisations also benefit from the automation of IT, enhancing efficiency and scalability of IT operations. However, the most significant value proposition is cost saving, with cloud users able to benefit from the lower capital and operating costs that cloud computing offers.
IT services offered under the cloud computing umbrella can be classified into three main service offerings, as summarised in Figure 2. These comprise Infrastructure-as-a-Service (IaaS), Platform-as-a-Service (PaaS) and Software-as-a-Service (SaaS).

Figure 2: Cloud-Based Service offerings

**IaaS**
- The organisation outsources the hardware used to support its business operations.
- Services include compute and storage.

**PaaS**
- Enterprises enhance cloud-based services using standard software templates which allow them to customise and even build software more suited for their organisations.

**SaaS**
- A software distribution model where applications are hosted by a vendor and made available via public/private network for its clients.
- Services include business apps, collaboration tools, security solutions and office productivity suites.
ADOPTION OF CLOUD COMPUTING IN AUSTRALIA

Australia is one of the fastest growing cloud services markets in the Asia Pacific region with the highest rate of cloud adoption. Cloud computing has already started to become disruptive to both the supply side and demand side (end-user) ecosystem of the IT industry. A wide variety of workloads, such as CRM, ERP, desktop, test & development and disaster recovery, among others, are migrating to the cloud. Frost & Sullivan expects the market to continue this growth momentum over the next three years.

Figure 3 illustrates the projected growth for the Australian cloud services market between 2012 and 2015. The average annual growth rate over this period is forecast at over 40%.

Figure 3: Australian Cloud Computing Market (A$ million)

Source: Frost & Sullivan.

To understand current attitudes towards cloud computing, Frost & Sullivan recently undertook a survey of over 150 IT decision-makers in Australia. As indicated in Figure 4 almost two-thirds anticipate that their budget for cloud services will increase over the next 12 months, and only 2% expect a decrease.
In many cases the anticipated increase in expenditure on cloud services over the next 12 months is significant – as indicated in Figure 5 almost 25% of IT decision-makers expect their budget for cloud services to increase by over 20%.

**Figure 5: Anticipated Increase in Cloud Services Budget over next 12 Months**

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 75%</td>
<td>1%</td>
</tr>
<tr>
<td>Over 50% to 75%</td>
<td>3%</td>
</tr>
<tr>
<td>31% to 50%</td>
<td>7%</td>
</tr>
<tr>
<td>21% to 30%</td>
<td>13%</td>
</tr>
<tr>
<td>11% to 20%</td>
<td>38%</td>
</tr>
<tr>
<td>6% to 10%</td>
<td>22%</td>
</tr>
<tr>
<td>&lt;5%</td>
<td>15%</td>
</tr>
</tbody>
</table>

\[N = 150\]

*Source: Frost & Sullivan.*

SaaS is the cloud service most commonly used, with over 80% of Australian organisations now using SaaS for at least some of their software applications. As illustrated in Figure 6, take-up of IaaS and PaaS is at a lower level, with 39% and 21% of organisations currently using these services to some extent. However given the benefits offered by both IaaS and PaaS and the increasing activity by vendors, Frost & Sullivan expects continued strong growth in take-up of these applications.
What are the Benefits of Cloud Computing?

Cloud services are perceived as offering a range of benefits to users. Providing greater agility and flexibility to an organisation is the most important reason for adopting cloud services for organisations, as indicated in Figure 7. The reduction of internal IT resource pressures is the second most important reason. Whilst initially lower IT costs were generally the main reason for adoption of cloud services, this is now the third-most important reason.

![Figure 7: Key Reasons for Adoption of Cloud Computing](image-url)

Source: Frost & Sullivan,
Despite the benefits that cloud computing offers to organisations, many are reluctant to adopt it at all, or at least not for mission-critical applications. In our interviews with IT decision-makers in Australia, four main challenges stand out, as indicated in Figure 8:

- **Security**: The risks to the organisation of a loss of service or a security breach;

- **Integration**: The challenges of integrating existing business systems and applications with cloud services;

- **Inconsistency**: The fact that existing business processes may be inconsistent with those offered by a cloud provider, and hence difficult to integrate, or that regulations (such as privacy laws) may be inconsistent with the business model of the cloud provider; and

- **Latency**: The potentially slower access to applications accessed through the cloud.

**Figure 8: Key Challenges in Adoption of Cloud Computing**

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data security threats / risks to the business</td>
<td>3.46</td>
</tr>
<tr>
<td>Integrating existing systems and legacy</td>
<td>3.41</td>
</tr>
<tr>
<td>applications to the Cloud</td>
<td></td>
</tr>
<tr>
<td>Migrating current business processes to the</td>
<td>3.24</td>
</tr>
<tr>
<td>Cloud</td>
<td></td>
</tr>
<tr>
<td>Latency / bandwidth issues connecting to</td>
<td>3.24</td>
</tr>
<tr>
<td>Internet</td>
<td></td>
</tr>
<tr>
<td>Lack of skills / resources needed to manage</td>
<td>3.16</td>
</tr>
<tr>
<td>internally</td>
<td></td>
</tr>
<tr>
<td>Upfront costs too prohibitive</td>
<td>3.05</td>
</tr>
<tr>
<td>Managing regulatory and compliance issues</td>
<td>2.93</td>
</tr>
</tbody>
</table>

These challenges are frequently driving the procurement behaviour of many organisations in their choice of a cloud services provider. Many IT decision-makers report a strong preference for a provider with local data hosting capability, and with data centre facilities offering the highest degree of reliability and security. This is seen as minimising the security and latency issues, and helps to reduce concerns around inconsistency and integration.
**Cloud Service Provider Landscape**

The cloud computing service provider landscape in Australia is increasingly becoming complex, with the entry of new market participants, including both local and global service providers looking to capture a piece of this growing market.

While the increasing number of cloud providers offers greater choice, it also complicates the selection process as users struggle to understand the differentiation between various market participants. Figure 9 illustrates the main categories of cloud service providers in the Australian market.

**Figure 9: Cloud Service Provider Ecosystem**

- **Product Vendors**: These are cloud service providers that have traditionally offered on-premise applications and have now introduced cloud-based alternatives of their solutions. Prime examples of such vendors include Cisco, EMC2, Microsoft, and SAP.

- **Pure-plays**: These are cloud service providers focused solely on offering cloud services. These service providers, in most cases, do not offer an on-premise alternative to their cloud services. These include service providers such as Amazon, Google, NetSuite and Salesforce.com.

- **System Integrators / Outsourcers**: These are service providers who have traditionally offered IT consulting and implementation services. Given the large potential market opportunity, these providers have introduced their own cloud services, mostly in partnership with a product vendor or as a pure-play service provider. These include global system integrators such as Accenture, CapGemini, Fujitsu, HP, IBM, NEC and Wipro.

- **Telecom Service Providers**: These are telcos that have begun to offer cloud services. While most Telcos are choosing to offer IaaS using their own infrastructure, they are often offering SaaS and PaaS in partnership with third party service providers that offer the underlying solution that is hosted in the telco’s data centre. Examples of telecom service providers with a cloud offering include Macquarie Telecom, Optus, Telstra, and Verizon Business.
Selecting the Right Cloud Service Provider

When evaluating a cloud service provider, the first stage is to identify the individual business requirements of the organisation. Equipped with this understanding, organisations can establish their exact computing and performance metrics which can help in identifying the right cloud service and can ultimately lead to the selection of the best cloud service provider for the organisation – one that ensures long term business viability for the organisation. In Figure 10 we outline the main technological and business considerations in selecting a cloud service provider.

Figure 10: Technological and Business Consideration in Choosing a Cloud Services Vendor

These criteria can be used as guidelines in evaluating an appropriate vendor, although the relative importance of each criterion differs for each organisation. However Frost & Sullivan believes that there are three over-arching criteria that are paramount in the selection of an appropriate vendor. These are listed in Figure 11:
Telecom Service Providers – Their Unique Place in the Cloud Landscape

Telecommunications service providers are increasingly entering the cloud services market, and offer a number of advantages over the other categories of cloud service providers, as indicated in Figure 12.

Figure 12: Advantages of Telcos as Cloud Service Providers

Source: Frost & Sullivan,
These benefits are summarised below.

- **Network Ownership**: Their ownership of the network infrastructure gives telecom service providers a unique market position. Wide area networks (WANs) form a critical component of the cloud infrastructure and telcos have demonstrated their ability to deliver reliable network connectivity under stringent service level agreements (SLAs). The visibility of their network assists telcos to manage cloud services and provision for unforeseen challenges. A robust, resilient and secure network is an important foundation in the delivery of cloud computing.

- **Breadth of Partners and Support**: The early success of cloud hinges on the breadth of the application platform and the support services that are provided in the delivery of these services. Due to the vendor agnostic nature of their business, telecom service providers are able to mobilise a strong network of best of breed applications and infrastructures. They also have strong field teams to support the availability and delivery of these infrastructures.

- **Scalability and Cost Savings**: The telecom service providers are able to scale more rapidly than pure-play cloud providers due to the breadth of their customer base. This ability to scale rapidly also results in cost savings that can be passed on to the customers, making telcos one of the most cost-competitive market participants in the cloud computing space.

- **Bundled Solutions**: By providing the underlying services such as broadband, voice, MPLS VPN and others to customers, the telecom service providers have an innate ability to offer greater value for bundled services that appeal to the price-conscious small business segment as well as larger customers who are looking for fewer sourcing partners.

- **Financial Stability**: Most telecom service providers are large businesses offering greater reassurance to customers of their financial stability and long-term commitment in the country of operation.

- **“Glocal” Character**: The telecom service providers understood the consequences of “glocalization” much earlier than other participants through their extensive network hubs across the globe and have further complemented this with a deep local presence that offers the best of global and local environments.

**CONCLUSION**

The cloud computing industry is changing at a fast pace. As organisations are looking to adopt cloud services, the vendor landscape is becoming more fragmented. Not all applications and not all business needs are served by the same service and/or cloud providers.

Hence, deciding on the right cloud service provider is increasingly challenging. A range of criteria can be used to evaluate the optimum provider for an individual business, with security and privacy, availability and performance being the most critical. Telecommunication service providers provide a number of benefits as cloud service providers, and are likely to be increasingly important players in the cloud vendor ecosystem.
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