One Cloud doesn’t fit all:
The emerging trends in multi-vendor cloud platforms

“To cloud or not to cloud” is no longer the question. Organisations have moved beyond the deliberation stage, and with many already using cloud services for some processes, others are further down the adoption path.

This White Paper looks at the future of cloud adoption within organisations. By exploring emerging trends, we’ll discuss how a multi-cloud strategy is the model that makes cloud viable for many organisations. We’ll also introduce the concept of Cloud Service Brokers, to support the facilitation and orchestration of cloud services.
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Section 1: How did we get here?

2012 was the year cloud computing evolved into a viable option for most. Moving past the “low hanging fruit” like email, custom applications or testing and development, many organisations now include more complex workloads and cloud infrastructure models.

Now cloud is increasingly accepted, many organisations have learnt enough to jump those early barriers to adoption. As a result, independent research carried out by the Cloud Industry Forum across 300 organisations shows that over half already use cloud computing in some form.1

So, if organisations are saying “yes” to cloud, what now? 2013 is arguably on track to be the year we see an increased migration to cloud based services. What’s more, evidence of the shift in attitude from deliberation to adoption can also be seen in a newly emerging market: that of Cloud Services Brokers.

First – let’s look at why and how cloud adoption has become a viable option.

Drivers to cloud adoption

Market trends have impacted the modern organisation. Increasing consumerisation, a faster pace of change and a new emphasis on the value of people within an organisation has led to a shift in culture.

Add to this the internal pressures around finance models, the mantra to “deliver more for less,” the need for agility and quick manoeuvrability within a constantly evolving market and you have a recipe for change.

Technology enhancements have not only driven change but enabled that change. The maturity and development of virtualisation, increased levels of automation and the development of cloud platforms has increased users’ trust, so the concept of cloud fits better than ever before.

Organisations are ready, culturally and technically, to adopt and realise the benefits of large-scale cloud strategies: CapEx replaced by a predictable OpEx model whilst flexible and scalable computing resources are available on demand. This will help support organisational change such as an increasingly mobile workforce and deliver a reduced time to market resulting in increased productivity and subsequently top-line growth.

1 http://www.forbes.com/sites/forrester/2012/12/03/2013-prediction-well-finally-get-real-about-cloud/
The IT Department: a critical role

Despite the familiar barriers - security, data ownership, lack of regulation alongside an often fragmented and confusing market - a greater understanding of cloud technologies, supported by successful cloud migration stories and case studies, has helped abate fears.

One of the main historic barriers - concerns over a “death” of the IT function within an organisation - has also been allayed, thanks to an increasing appreciation of IT’s value. Rather than becoming redundant, the roles of the CIO and their team are becoming pivotal to developing, delivering and managing technology transformation. In fact, the roles of the IT department will become more mission-critical than ever before as the team is relieved of basic housekeeping tasks and freed up for more innovative and strategic workloads.

After all, IT provision is more fundamental to an organisation than ever before. Almost every facet of a successful business, from mobile workers to customer experience, all rely on the right technology, delivered from the right platform, together with the agility to change in line with the organisation’s requirements. If CIOs can’t make their systems work efficiently, today’s workforce will make it happen for themselves. The ease of use and access to mass-market cloud services like Dropbox or Google Docs, means if the IT department doesn’t get the offer right, their tech savvy employees will find their own way.

And so the IT team becomes business enabler rather than caretaker. The role is more strategic - looking at how to provide solutions which help the business achieve its objectives, such as achieve growth or address new markets. As a result, the relationship between the business and the IT function becomes closer than ever.

Section 2: What are the options when it comes to cloud?

Traditionally, both the public and private cloud had issues which raised doubts amongst CxOs.

- High profile public cloud outages and questions over data ownership and privacy led to security and productivity concerns, whilst critical legacy systems that cannot be supported in the public cloud remain a problem;
- The additional layer of control private clouds provide comes at the expense of the flexibility, as well as hardware and maintenance costs that cloud services are supposed to remove from the IT budget.

At this point, however, it’s worth looking more closely at what we mean by “private cloud”. The phrase has no real definition and could have a number of meanings. When issues are raised regarding private cloud solutions, they generally refer to an on-site or hosted cloud offering dedicated use to a single customer. In these cases, the typical benefits such as the CapEx/OpEx switch, flexibility and freedom from caretaking aren’t felt. This type of private cloud can, however, offer a peace of mind factor borne out of residing within the enterprise firewall. But there are those who criticise.
In achieving the benefits associated with the characteristics of cloud, which according to NIST\(^2\) are on-demand self-service, broad network access, resource pooling, rapid elasticity or expansion, and measured service, a truly private cloud solution may not be “really cloud”. But there is another way to look at the concept of “private cloud” which certainly brings most of the benefits of a cloud based platform.

A Virtual Private Cloud can create a dedicated platform inside a public cloud service for your sole use with maximum flexibility retaining security and control, providing the benefits of cloud as described by NIST. A virtual dedicated solution can privately ring-fence certain aspects of the infrastructure, such as dedicated storage, compute or firewall for your sole use – utilising a service provider’s infrastructure, to drive down installation and set up costs and reduce delivery times.

But there is a lot more to consider than just private or public cloud. Different cloud providers have different specialities and provide different service levels. The very low cost cloud with only moderate performance may be ideal for a test and development environment, but is unlikely to be suitable for a production database environment, for example. One cloud may be ideal for a highly compute intensive workload whereas another may be ideal for heavy storage I/O.

And so there are a number questions that organisations will need to answer. Questions such as:

- Who and what to use?
- How can multiple services fit together?
- How do the SLAs from multiple providers integrate effectively? How will enterprises manage the rapid change in either provider’s solution?
- How will they manage the licensing and IP addressing issues associated with using multiple providers?

When considering cloud projects a “one size fits all” approach will not work in the majority of cases. The solution is to place the workloads best suited to a public cloud platform there, and sensitive workloads can stay closer to home in a more secure, private cloud.

With a range of options, and so many definitions, no wonder the Enterprise Cloud is a multi-cloud solution.

**How will it work?**

Research by Gartner shows evidence that organisations are already finding answers to these questions – and formulating processes to make the transition to cloud easier.

In fact, there are two key trends emerging in the market for cloud deployment:

- Organisations are developing formal decision-making frameworks for migrating workloads to the cloud;
- Cloud Service Brokers (CSBs) are taking a more prominent role in helping shape, and ultimately deliver and manage the strategies driven by these frameworks

Formal decision-making frameworks

Industry analyst Gartner\(^3\) sees the role of formal decision-making frameworks as a vital step towards making sense of the risk versus benefit dilemma involved in moving to the cloud.

Gartner says these frameworks will:

- provide a model to identify legal, compliance and corporate sensitivity issues in order to overcome primary fears about security without becoming constricted by them.
- map anticipated benefits and risks for moving particular workloads or data combinations into public or private cloud environments.
- consider the timing of the anticipated impact and prioritise projects with near-term impact versus those with longer-term, indirect impact.

The results of working with such frameworks enable an enterprise to take a confident and well-researched step into further cloud deployment, with a reliable expectation of success.

Choosing the right option for your business

Utilising cloud services is now about facilitation and orchestration, and both will be a key part of the adoption of cloud services over the next year.

So if the debate isn’t as simple as “go public or stay private”, what will Cloud adoption within organisations look like? Organisations need to ask themselves “what type of cloud do I need for my systems and business?” to ensure optimisation of cloud services to meet the organisations objective’s and satisfy regulatory and compliance requirements.

When embarking on a cloud project for an organisation, a ‘one size fits all’ approach will not work in the majority of cases. This leads to a role for a facilitator of cloud consumption. A role that requires a deep understanding of an organisation, its goals, current infrastructure, any regulatory requirements to name a few, and then manages the integration, aggregation, customisation and interoperability\(^4\) of fully integrated “multi-cloud environment” infrastructures. The approach provides an opportunity for CSB’s to play that role.

The role of Cloud Service Brokers

Making the decision to move into cloud is one thing – mapping the strategy through a formal framework is a step closer – but delivering the solution in its entirety is a whole other ball game. The cloud industry is composed of a fragmented myriad of solution providers for each workload, with many coming as an unknown quantity in terms of scale, ability and longevity. No ‘one size fits all,’ yet organisations look for a ‘one-stop-shop’ to make migration to, and working in, the cloud a worthwhile exercise.

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\(^3\) [http://www.gartner.com/newsroom/id/1971515](http://www.gartner.com/newsroom/id/1971515)

\(^4\) Source: The Executive View on Cloud Service Brokers: Leveraging Cloud Solutions in a Cloud Service Broker Model. Hitachi Consulting
In steps the CSB. Gartner defines the role:

“As cloud computing adoption proliferates, so does the need for consumption assistance. A cloud services brokerage (CSB) is a service provider that plays an intermediary role in cloud computing. A CSB is primarily made up of three roles: aggregator, integrator and customiser. These roles are adopted by IT services providers, B2B providers and new cloud specialists.”

The analyst expands further on the precise nature of the role of Cloud Service Brokers, saying they:

- Make it easier to consume and maintain cloud services from multiple providers
- Remove cloud complexity and burden of work for customers consuming cloud
- Consolidate 3rd party technical and commercial interfaces for cloud consumers
- Provide a ‘one stop shop’ for procurement and management of cloud solutions

It is entirely feasible that the current IT team will take on the CSB role, utilising their knowledge of internal workloads, systems and processes to identify which providers are most appropriate and prioritising migration based on those decision-making frameworks.

However, where skills or resources are lacking, or indeed, where enterprises are seeking to outsource some of their traditional IT function, the role of CSB will be sought from a third party. This new market for another layer of IT management will create a close working partnership, with the CSB helping the CIO and his team to develop a cloud strategy appropriate for their needs, and then managing the implementation in its entirety.

According to Gartner the interest in, and adoption of, CSBs increased in 2011 and, consequently, the market saw an expansion of CSB offerings. This trend is forecast to continue, as you might expect. After all, deploying a multi-cloud solution is a significant undertaking. By acting as an intermediary between the cloud “consumer” and the myriad of providers, CSBs are adding a layer of value that manages both security and risk, the complex interdependences of SLAs, intellectual property and compliance issues whilst keeping tabs on the rapid pace of change.

**Summary**

The reality of making the move to cloud is forcing the market to change – and the use of formal decision-making frameworks, followed by a firm partnership with a Cloud Services Broker marks a potential pathway to adoption.

The elimination of the myth that cloud has to be either public and risky or private but less economical is perhaps what makes cloud truly viable for the organisations for the first time.

One of the most significant changes is the understanding that a “one size fits all” approach for cloud services doesn’t work. Decision-makers can focus on choosing a bespoke solution that supports their core versus context needs – in considering what sits behind the confines of the enterprise firewall and what can safely live in the public cloud. This multi-cloud approach really opens up the viability of cloud to be appropriate for the whole operation of the business.
For now, the role of CSB remains undefined and only time will tell how this model will evolve. As an emerging market, the business of being a CSB is not yet a straightforward one, but this image of a multi-cloud solution for organisations gives us a great insight into how best to approach future provisioning.

It’s clear that cloud adoption relies on this style of robust identification and prioritisation of workload migration – this is the role of the current IT function. CSBs are eventually likely to help shape and deliver the multi-cloud vision, by making sense of the fragmented marketplace, optimising cloud investment and finally leaving behind the increasingly outdated fears around security and reliability by delivering the business benefits that cloud has been promising for all these years.

However in the meantime, organisations can take action now, with their trusted current providers. A good provider will be aware of creating a solution which would best fit the organisation and should offer consultancy and advice as well as taking a role in helping to integrate a multi-platform setup. Challenge your service provider to help you get where you need to be by matching your requirements on cost, service and support, and by assuring interoperability.

Consider your providers as partners, and share your cloud and organisation’s goals – after all, your current suppliers should know your business and your needs better than anyone, as well as understanding the wider model of how cloud services can integrate with other platforms. Seeking advice from trusted partners in the first instance can go a long way to finding your own, bespoke, multi-cloud solution and help you exploit new uses.

To learn more about how Kcom can help you on your Journey to the Cloud, please contact us.