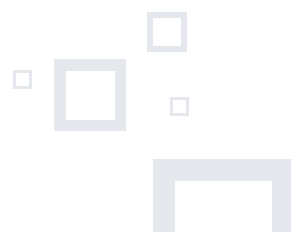


bluesource white paper

Is The Cloud Ready For You?

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Is moving to 'the cloud' an inevitable and irresistible path? Do organisations have to move at the IT industry's pace? There is an alternative approach, argues Matthew J Edwards, Chief Technology Officer at **bluesource** Information Ltd.

Management Summary

Cloud Computing is the latest, 'next best thing' in the IT industry. Organisations are under seemingly irresistible pressure, both internally and externally, to commit to this new model of computing. One could liken this to the emperor's new clothes in Hans Christian Andersen's short tale; those garments were invisible to those persons unfit for their positions or incompetent. In like manner the superiorities of cloud computing over the current on-premise models can only be denied by people of equal ineptitude...or so the protagonists of cloud computing would have us believe.

Whether you are enthusiastic about cloud computing or not, it is here to stay and has a compelling wave of hype sweeping it forward. Such a tsunami can only be ignored at peril.

Being swept along on a tide of hype however is not a rational or helpful course of action. *There is an alternative approach.* Organisations need to stop considering the cost of attempting to move to the cloud on their own state of 'cloud readiness' and instead start assessing the readiness of the cloud for *them*, placing *their* needs and *their* interests back into the heart of the equation. Cloud computing can offer significant benefits, but potential hazards on the way could outstrip the initial gains made. Organisations would do well to work with third-party providers skilled in remote management and managed services in order to navigate a path to the cloud on their *own terms*, not those that meet the agenda of cloud computing vendors who want to drive organisations along at their pace. Taking this alternative approach will improve the ability to see a genuine Return On Investment ('ROI') from the cloud.

Cloud Computing: From Hype to Hope

It is impossible for anyone involved in purchasing, deploying or using IT not to have heard of cloud computing, for it has been the latest, greatest IT industry buzzword of the past 12 months and is set to take on an even higher profile over the next 12 months as almost every established vendor makes its own cloud play. The result will be a seemingly overwhelming tide of hype and hyperbole as all seek to stake their claim as market leaders of this new territory.

The challenge for end-user customers is to have to pick their way through the claims and counter claims of the vendor community. They need to be able to differentiate their IT 'needs' from their 'wants' and then conduct a maturity assessment of the cloud offerings to see if their needs can be met in the short to medium term.

Naturally some introspection is required. Organisations should have their internal processes and systems mapped to a maturity matrix to determine the most appropriate course of action. They will also need to be candid in their assessment of their own capabilities and ambitions so that they know that they can execute on that course of action. For example, can they move to a remote management model in the cloud rather than be reliant on the traditional on-premise server administration approach?

This is not necessarily going to be easy as the level of interest around cloud computing in the IT industry is phenomenal. Genuine cloud computing pure-play vendors are competing for C-level Executive attention against the established on-premise technology vendors who in turn are trying to formulate their own cloud computing claims. Some of these claims are legitimate such as the commoditisation of email for example,

but many are not (an example of which is the claim that switching cloud computing vendors is easy). The level of noise is deafening with high levels of fear, uncertainty and doubt being spread around. But the unifying message from all vendors is: 'Move to the cloud and do it now!' The reality however, is that this is not going to be the best strategy for many organisations that need an approach to meet their own needs, not the needs of the IT industry.

The situation is further complicated by pressures from within an organisation. The CIO is under pressure to cut back on IT costs while simultaneously maintaining or improving service levels. The CFO needs to see greater budgetary efficiencies and is piling pressure on the IT department as a cost centre. The CEO needs to find better ways of competing in an increasingly tough marketplace and is looking to IT for help. On top of that, he or she has read all about the 'cheaper, faster, better' claims for cloud computing and wants to know: 'Why aren't we doing this?' To all of these constituencies, cloud computing promises to be the latest 'silver bullet'.

Under the weight of such powerful internal and external pressures, it is easy to assume that the tide of cloud computing is irresistible. Research from Gartner Group predicts that by 2012, 80 percent of the Fortune 1000 enterprises will pay for some form of cloud service, while 30 percent of them will pay for cloud infrastructure.¹ But the reality is that while the cloud may well represent a possible future, it is not the *only* future for all organisations. There are alternatives that should be taken into account and it is vital that organisations are not cajoled by vendors into adopting cloud technologies that are not appropriate or beneficial for them.

All too often the question is asked: *'Are you ready for the cloud?'* when a more appropriate question is: *'Is the cloud ready for you?'*

There is no single answer to that question. For some organisations, a full scale move to the cloud now will be appropriate; for others such a move might never be appropriate. For the overwhelming majority, a considered, phased move to the cloud with a mixture of hybrid or blended on/off-premise solutions is likely to prove the best solution. None of this is made any simpler by the fact that many cloud providers seem more intent on establishing their own capabilities and shaping the market around those than adapting to the needs of their potential customers.

Let's consider briefly the claims and counter claims for cloud computing.

The Silver Lining

From the early days of the corporate mainframe through to the supposedly revolutionary days of the client server model, the IT industry has consistently promised more than it has delivered with the result that IT has all too often ended up inhibiting instead of empowering.

IT systems have forced organisations to map their processes onto the limitations of the technology rather than the other way around. IT has come to be regarded as a cost base that limits the business. Cloud computing evangelists promise that their new approach can right these wrongs.

Those claims include:

Cloud computing is a lower cost option: Cloud computing advocates argue that the economic rationale is irresistible. There is no need to invest in infrastructure; no need for upfront payments to vendors; no being locked into unwieldy tiered licensing contracts that work to an organisation's disadvantage; no application footprint to manage; and so on. The arguments are well-rehearsed and have a good degree of legitimacy in many cases.

Cloud computing enables organisations to leverage better performance: Existing infrastructure investments will see improved performance. For example, PCs in a cloud computing system will boot up faster and run faster because they'll have fewer programmes and processes eating into memory. When applications are running in the cloud, they tap into the shared power of the entire cloud. Similarly, the cloud offers highly scalable and virtually limitless storage capacity.

Cloud computing means fewer maintenance issues and no upgrade demands: With less hardware needed, maintenance costs are immediately lowered while applications in the cloud are maintained elsewhere. When an application is based in the cloud, updates happen automatically and are available the next time the user logs in. Whenever a web-based application is accessed, it seamlessly presents the latest version (actually, with a continuous release schedule, the concept of 'version' becomes fairly redundant).

Cloud computing offers more robust data back-up: If a system that is run in-house suffers from a hard disk crash, there is potential for partial or total data loss. On the other hand, a computer crashing in the cloud will not affect the integrity of data in the main, because storage is automatically duplicated (often by means of distributed 'grid' computing). Just like a tree falling in the forest, the impact is minimal; and if a user's desktop PC crashes, their data is still out there in the cloud and still accessible.

¹ Forecast: Sizing the Cloud; Understanding the Opportunities in Cloud Services, March 2009

Cloud computing enables collaborative working: Cloud computing enables multiple users to collaborate easily on a variety of tasks and to 'follow the sun' geographically for larger organisations, extending the working window. Documents can be accessed and managed remotely. People can collaborate in real time to achieve quicker, better results, leading to a significant competitive advantage in a global market.

Cloud computing helps organisations avoid skills shortages: For example, while organisations may struggle to find and retain skilled practitioners of leading on-premise ERP applications, cloud ERP providers supply on-line support staff as a service backed by Service Level Agreements (SLAs). IT departments can allocate internal resources to more business-critical tasks, taking organisations closer to the elusive goal of bringing IT and business into closer alignment.

The Cloudburst

So far so good. All these individual benefits add up to a compelling argument for most organisations to want to explore what cloud computing can do for them. Nevertheless there are potential downsides of a move to the cloud. Some of these may be things that an organisation can live with or work around; others may be deal-breakers for now or forever.

Cloud computing requires a robust and constant network connection: No network, or internet connection, means no access to business systems. This probably isn't a deal-breaker for connectivity in the office or the home, but for remote working the mechanics of establishing robust network connections needs to be factored in as well as speed of the connection. For smaller firms in particular this is highly relevant. If their network connectivity is not sufficiently robust, then running systems in the cloud may in fact slow them down.

Cloud computing applications may not offer the same degree of functionality as on-premise: Many web-based applications currently do not offer the same degree of functionality that users are accustomed to with on-premise alternatives. For example, the rich features and functionality of many enterprise-level CRM systems may not be matched by the new generation of web-based counterparts. Organisations will need to ask themselves how much of the functionality of on-premise applications is actually utilised or needed on a routine basis and how much of it they can live without.

Cloud computing presents new security concerns: Security is the primary inhibitor to cloud computing adoption although the security levels of the leading cloud providers is well in excess of what most organisations can run to internally. Cloud providers live or die on their security track record and so invest huge amounts of time and money to it. This of course will be no comfort if an organisation happens to be the victim of a breach. Concern is further exacerbated by the fact that some cloud providers don't offer adequate SLAs or guarantees for security levels or audits.

Cloud computing may not address compliance or other regulatory requirements: Market regulations vary from organisation to organisation, business sector to business sector and region to region. Depending on an organisation's profile, perhaps it might consider putting some data types into the cloud but keeping others out. Again the maturity assessment model comes into consideration. Is the organisation happy to run customer data in the cloud, but not financial data, for example? What are the compliance and regulatory considerations? Would the price of sending data outside company firewalls be too high if there were to be a security breach? There's also the question of sending data across borders since different countries have different disclosure laws. Cross-border discovery cases are becoming increasingly frequent and cloud vendors may not have the infrastructure to deal with this growing need.

Cloud lock-in is perfectly possible: One of the myths perpetuated by cloud evangelists is that cloud computing is platform-agnostic with no more vendor lock-in to a single supplier. This is simply not the case. Most cloud offerings will require moving to a single platform which can be as proprietary as an on-premise system. Integration complexities and costs need to be considered, both cloud to cloud and cloud to on-premise.

Migrating to (and from) the cloud may not be as easy as it seems: If a decision has been made to move to the cloud, has consideration been given to how easily it is to get all the data from the on-premise system into the new cloud provider? Or will an organisation prefer to keep the historical data in the on-premise version and integrate with the cloud replacement for newly created data only? If the organisation is unhappy with one cloud provider, how easy is it to move to another? Most providers boast that it's easy to move data into them, but in reality few of them, at the time of signing a contract disclose the technological complexities and associated costs of migrating the same data away from them at the contract's completion.

Cloud computing might meet with internal resistance: This internal resistance could include: cultural, geo-political factors, fear of change - including loss of autonomy, fear of having to re-learn existing job skills and reallocation or loss of resources. These are inevitably the difficulties that come with changing any established processes or company culture. Cloud computing may seem enormously appealing to the CEO,

the CFO and the business user tired of waiting in line for IT to deliver new systems, but it might be met with resistance from the CIO. Many organisations are used to having tightly-controlled centralist IT operations. Some (but not all) CIOs may object to cloud computing with legitimate concerns about security or reliability; others will simply object on the grounds that it threatens their IT power base. Organisations must assess the legitimacy of these objections before any move to the cloud.

Cloud computing will have its share of casualties: Cloud computing is spawning a new generation of start-ups, not all of whom will survive². Simple market economics will claim some of them; others will be acquired, possibly by the very vendors that the organisation is choosing to move away from. Should it invest in a start-up which might not survive or stick with tried and tested on-premise vendors that are now moving into the cloud? If the decision is to go with a start-up, what provision is there for recovery from failure? If that cloud start-up folds, what happens to its client's data?

Cloud computing might not end up being as cost effective as claimed: Immediate low costs need to be measured and weighed against the long term running cost or the Total Cost of Ownership (TCO) of both cloud and on-premise options. For example, if a person were to go and live in a new town for 6 months he would probably be better off renting a house; if he was still in that town 6 years later, it may have been more sensible to buy that house. Organisations need to consider the wider cost implications and prove the financial case for themselves. An organisations cost evaluation must be based on their own circumstances and needs. One size will not fit all.

Cloud computing is not an all or nothing choice: It might seem as though organisations are being asked to make a near religious choice between one world view or the other, with nothing in between. In reality, the overwhelming majority of organisations will adapt to a strategy of co-existence where some systems and applications are in the cloud while others remain on-premise. A gradual, phased migration to the cloud will be the path that most organisations choose to follow, and at their own pace.

In Summary – Cloud Nine or Clouded Over?

No-one likes to make an uninformed decision. Cloud computing might be the obvious IT evolutionary path for most organisations, but that doesn't automatically make it the best thing for everyone. Knowing what you know about cloud computing and how it works, can you say it is right for your organisation? Have you considered the alternatives such as on/off-premise managed services which could provide many of the cloud-like benefits of commodity pricing, enhanced SLA's, predictable spending but without the risks and costs associated with migrating to the cloud?

All corners of your organisation will need to come together so that there is a collective understanding not only of the potential but of the problems of moving to the cloud. Of course some executive officers will be enthused after reading about the theoretical cost savings from cloud computing, but that enthusiasm needs to be tempered with the reality of other practical issues. Senior management might be instinctively adamant that this is not the route to take, but they need to be open to the potential of the cloud as well as appreciating its promised fiscal benefits.

Your organisation also needs to have an understanding of the hidden costs of the cloud as well the potential savings. While in the short term the TCO might well be lower, over a longer period of time that may become questionable. Your organisation also needs to consider the costs associated with attempting to move to the cloud on its own; such as the need for migration paths to take legacy applications into the cloud, increased bandwidth bills or the integration costs of tying together cloud and non-cloud applications.

Internally there must be a meeting of minds. This will only be possible if the decision makers are ready and able to be honest about their needs, expectations and capabilities as well as their existing cost base. That means rigorous internal scrutiny of existing processes and practices. Most organisations will need to carry out a maturity assessment programme (including processes, infrastructure, applications etc) to highlight and isolate the strengths and weaknesses within their organisation and provide an honest picture of which areas of cloud computing are ready for them and which are not.

Getting that honest view will be made easier by working with specialist consultancies who can support whatever model your organisation decides upon; whether that be a cloud, managed service or a hybrid model. They should not force you down a particular path to suit their own needs rather than yours. You need to work with specialists who can provide you with impartial guidance and information that you need to make sound investment decisions and travel with you on your journey to the cloud no matter how long it takes.

² The cloud's forebear, the ASP market, demonstrated this with failures of companies like Pandesic.

Questions to ask yourself:

1. Can I distinguish between my organisation's IT 'needs' and 'wants'?
2. Have I consulted an independent, external cloud integration specialist?
3. Do I understand the cost of moving to the cloud as well as the cost of exiting the cloud?
4. Do the key decision makers in my organisation have a clear understanding of the advantages and disadvantages of cloud computing?
5. Have I researched the current cloud offerings to the point where I can differentiate marketing hype from referential capability?
6. Will the necessary process changes to service management be acceptable to my organisation and do I have sufficient sponsorship to implement those changes?
7. Do I have sufficient sponsorship from within my organisation to ensure that the journey to the cloud is realised? Has a business case been prepared?
8. Can I live with the potential disadvantages of the current cloud offerings and still deliver better value for my organisation?
9. What is my organisation's exit strategy if cloud computing doesn't deliver to expectations?
10. Can my organisation's needs be met by an alternative solution with better results?

How **bluesource** can help you to evaluate whether cloud computing is ready for you:

bluesource is a global services company that offers world-class consultancy, managed services and 24/7 support to help clients in their evaluation of cloud computing and assist them on their journey to the cloud when, and if, appropriate. We have been working with cloud computing providers for over 9 years, many of whom are best-of-breed. We work with clients to align communication, messaging and collaboration technologies to enable them to operate more effectively, both within the organisation and beyond. **bluesource** directly supports over 400 customers and manages over 1000 servers globally across all Industry sectors from its Service Management Centre (SMC) which adheres to the ITIL framework. Our results for clients speak for themselves. On average, 98% of incidents reported are resolved in line with prescribed SLAs by a highly specialist team of engineers. Case studies show that clients typically save on average 80% of their system management costs, allowing their internal staff to focus on core business projects.



Contact bluesource

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