

Customer Engagement and the Cloud



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Understanding the Benefits and Applications of Cloud Computing

There has been a lot of talk and hype recently surrounding this new phenomenon called the "Cloud". A lot of senior business and technology people are taking note of the messages- they are actually very hard to avoid - and wondering what do they actually mean, in practical terms, for their businesses and their job roles. This whitepaper attempts to de-mystify the Cloud for business and IT professionals in general and, more specifically, looks at the key role that the Cloud can play in driving forward an organisation's customer engagement strategies whilst, at the same time, providing a highly cost effective and scalable environment upon which to base such strategies.

What is "The Cloud"?

The Business Answer

For anyone running a business of any size the "buzz words" that come from the IT industry on a regular basis can be bewildering. For those who are not IT experts, talk of the latest must-have product or service can be very confusing; particularly when they all seem to promise greater efficiencies and cost savings. The latest hot topic is the Cloud. The confusion around Cloud is not helped by the fact that there are so many definitions flying around. However, it is fair to say that Cloud genuinely has all the hallmarks of being a disruptive technology that could revolutionise the way that businesses are created and run. But if a lack of understanding about Cloud exists, how can those already running, or

looking to start a business really reap the rewards that the Cloud promises?

In short the Cloud is simply computing delivered over the web. It really is that simple to understand but what it offers for many businesses is a revolution in the way they think about and consume computing. It offers a cheaper and easier way to buy computing power. Seldom do these two qualities go together but when they do, things can change in a big way.

Today a whole new model is emerging. Nicholas Carr, the American writer, was the first to compare computing to a utility, and the movement behind the Cloud is indeed creating an endless and easy supply to a very powerful resource.

Historically, business that wanted to harness computing power for say an ecommerce web site would have to invest in both hardware and software and make sure they were capable of installing and maintaining this investment. This level of IT knowledge would quite probably be a long way from the core activities of the business. However, in the next 10 years we will start to see a shift whereby most businesses will not buy, own or operate servers, instead they will consume IT services over the web leaving them free to concentrate on their core business.

A key benefit of the Cloud is that it:

- Provides businesses with the flexibility to scale up their sites and services rapidly

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- Allows businesses to meet sudden spikes in traffic
- Can be deployed as a pay-as-you-use service

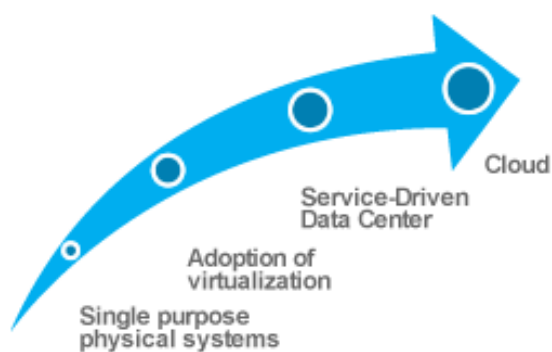
The Cloud is a cost effective approach to technology since businesses don't need to make upfront capital investments in hardware or software, but still get access to best-of-breed technology through third party suppliers.

What is "The Cloud"?

The Technological Answer

The Cloud is a set of services and technologies that enable the delivery of computing services over the Internet in real-time, allowing end-users instant access to data and applications from any device with Internet access.

The Cloud is really the next logical step in the evolution of the corporate data centre.



Cloud offerings are categorised into three applications: software-as-a-service, platform-as-a-service, and infrastructure-as-a-service. These services and platforms can be used individually or in combination with existing in-house infrastructure. Many Cloud services can

be deployed in-house, referred to as "the private Cloud."

Software-as-a-Service (SaaS, or "Cloud applications") is a model of applications delivered over the Internet, usually through a Web browser. Many of these services are consumer-oriented, but increasingly enterprise applications are coming from the Cloud. In fact, a recent IDC report predicted that 76 percent of businesses would use SaaS in 2009, and that SaaS spending would grow more than 40 percent. Examples of Cloud applications include Google's Gmail and Google Docs, Microsoft's Dynamics CRM and BPOS offerings, Salesforce.com CRM, and Zoho Office. In each of these scenarios, applications and accompanying data is stored remotely and delivered over the Internet through a Web browser. Customers generally pay on a per-user subscription model.

A number of technological developments have made SaaS applications more powerful and easier to develop. The latest versions of HTML and JavaScript include features which make browser-based user interfaces more desktop-like. New platforms have emerged which offer fast development and online/offline modes. These include Adobe's AIR, Microsoft's Silverlight, and Google's Gears. And of course the increasing ubiquity and decreasing costs of high-speed bandwidth have been crucial to this movement.

Infrastructure-as-a-Service (IaaS) is the delivery of computer architecture over the Internet. It involves the use of remote computers (operating systems, databases, middleware, applications) and storage, oftentimes enabling Cloud applications. The

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idea is that large, specialised players can operate server farms more efficiently than the average enterprise, so IT departments can supplement or replace their current servers with outsourced resources. This allows IT departments to scale up or scale down service levels quickly with minimal costs.

While IaaS adoption has lagged behind SaaS, it is quickly gaining traction. According to a recent Forrester report, 25 percent of enterprises are using or plan to use IaaS services in 2009

As with Cloud applications, most Cloud services follow a pay-for-use model where customers pay for computing time by the hour, by amount of storage used or transactions made. Introduced in the 1990's as "Grid Computing," the maturation of the Internet and its associated technologies has furthered its adoption. More recently, Amazon's EC2 and S3 have emerged as the dominant Cloud providers, but Microsoft, IBM, Force.com, AT&T, Google and dozens of startups offer IaaS products as well.

Platform-as-a-Service (PaaS) is the model whereby application middleware and build tools are made available to developers by a remote service provider. The most popular PaaS offerings include Salesforce's Force.com and Google's App Engine. Developers use these tools to rapidly build Web-based applications. PaaS development tools are usually free, with the customers paying only for the resultant hosted application.

Together, SaaS, IaaS, and PaaS represent the Cloud ecosystem. Ultimately, organisations will piece together their own labyrinth of

services from each category to increase application performance and decrease costs.

What Isn't "The Cloud"? The business answer

Now that we know, or hopefully know, what the Cloud is, it is important to consider what the Cloud isn't. The Cloud is not:

1. **Always appropriate for every business or, indeed, every business application:** For some businesses, particularly those handling sensitive data or where instant responses are critical, the use of the Cloud is not really an option. It is vital to profile your business use of IT and to identify those systems and business processes that are appropriate for movement to the Cloud and those that are not.
2. **A "silver bullet" to meet all of your IT and computing needs:** Using the Cloud to drive some or all of your business's IT needs will still require you to have IT resources- be they , smaller and more focused - so that your business users are able to benefit from using Cloud resources.
3. **A way to eliminate the need to employ IT specialists:** the Cloud is only useful if you can access it reliably and to deliver the kind of applications that your business requires. Meeting both of these simple needs will still require - again albeit smaller and more focused - IT staff teams.
4. **A sure fire way to always save money:** The Cloud creates a new business model for IT, one that is based on usage rather than outright purchase. In the new

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model, you will be charged for using the Cloud services not for owning them. It is analogous to the decision whether to hire or buy a car - hiring the car reduces the upfront cost, eliminates servicing costs and is, generally, paid for on a time based measurement. Buying a car is the reverse where the upfront cost is high but the daily usage cost is, generally, much lower. You will need to consider your IT usage patterns in order to determine whether the Cloud will be cheaper for you or most expensive in the long run.

5. **Just about technology:** Technology makes Cloud computing possible but realising the true cost savings and flexibility that it can offer also requires businesses to analyse their business model and processes correctly and to have trained staff members who can maximise the benefits that can be derived.

What Isn't "The Cloud"? The Technological Answer

Now that we know, what the Cloud is, it is important to consider what the Cloud isn't. The Cloud is not:

1. **Just a case of moving applications onto the internet:** There is much more to Cloud computing than just delivering browser based applications. Individual elements of particular applications, for example post code look-ups, can be developed by Cloud services whilst the rest of the applications remain within the business's own infrastructure.
2. **Just about "virtualised" computing:** Whilst it is true that modern virtualisation techniques drive many Cloud strategies, there is no requirement for a Cloud strategy to run on virtual rather than physical servers.
3. **About moving data and applications out of the business:** It is perfectly possible and, in some cases, highly desirable for businesses to create their own "private" Clouds internally in order to guarantee data security and access performance.
4. **The end of the internal IT department:** Far from it, the role of the internal IT department is likely to become more strategically important to a business, as they look to maximise the business benefits of IT based upon a Cloud model, than is currently the case where IT is viewed as "the people who keep the servers going".

What Should Be On The Cloud and What Shouldn't?

What should or shouldn't be on the Cloud will depend very much on the nature of the individual business involved. In some cases, every business application is a candidate to be on the Cloud, in others maybe some or none of them are appropriate. Because the Cloud is a complete infrastructure there may be design considerations where the user interface or public facing service for your applications reside in the Cloud giving all the benefits of scale (up or down), capital costs etc. However in others it is deemed too dangerous or, in some cases, illegal for the business to allow the data store for the application to reside in the Cloud. The data store could be hosted internally within the

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business allowing full control and management of the actual data. Obviously considerations will need to be made to manage the infrastructure, hardware and software capital costs for this.

Looking at the Cloud as a possible IT strategy provides an ideal opportunity to review your overall business processes and procedures, and the associated IT systems and solutions in place to support them. Based on this analysis, decisions can be made about the appropriateness, or not, of moving all or part of the business onto the Cloud and the relative priorities for different parts of the business. It is generally not a good idea to take a "big bang" approach to any kind of major technology shift - not least because it is very hard for any organisation to absorb mass

change itself - rather a phased approach, based upon agreed business priorities and risk assessments, offers a great way for an organisation to try a new technology in one area of the business, learn the lessons, and then move on, if appropriate, to all parts of the business re-assured by the outcome of the first experience. This approach is ideally suited to moving to Cloud computing for most, if not all, businesses.

Customer Engagement on the Cloud is NOT Just CRM

One of the first end-to-end business applications that were moved onto the Cloud was the CRM (customer relationship management) system. Early pioneers like Salesforce.com developed only internet based



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applications, made them such that they were multi-tenanted (ie. many companies can use the same copy of the application), and developed a usage model rather than a software license model. Other players, most notably Microsoft with its Dynamics CRM product, followed suit and developed competing software-as-a-service offerings. CRM was a natural application for the Cloud as it is, in a traditional sense, a closed environment application - that is, the whole end to end management of the business process, in this case, managing customer records, takes place in the single application and is, generally, managed by a closed set of business users (e.g. the sales team, the marketing team, and the customer service team).

But true customer engagement management is about much, much more than just using a CRM application to record customer contact details and some elements of their interactions - mainly sales or service focused - with the business - or, at least, it should be. In a true customer engagement management situation, the solution needs to reach out to embrace many customer touchpoints and specialist applications.

As shown in the diagram above, there will, typically, be:

- The web site where customer can "self serve" and transact with the business and each other
- The finance system where customers' financial transactions are recorded and managed,

- Customer service applications - such as CRM applications but not limited to CRM applications alone - where customers' sales and service enquiries are dealt with
- And other specialist applications - dependent upon the nature of the business - that deliver value to the customer and to the business.

So, as we can see, it is about far more than the CRM application, customer engagement is about managing and joining up all of the many business-to-customer touchpoints. So how can the Cloud possibly help in such a disparate environment?

Customer Engagement and the Cloud

True customer engagement management is, as we have discussed above, about managing and joining up all of the many business-to-customer touchpoints. The Cloud provides a great platform for managing and integrating these disparate touchpoints in a flexible, scalable and cost effective manner. At the heart of the Cloud is the ability to process many millions, or indeed billions, of the same requests without incurring huge internal IT costs and having massive IT infrastructures. This is ideal for a customer engagement management solution where all of the pieces are, potentially, distributed within and without the business, and where they all, potentially, need linking together. The Cloud, regardless of which Cloud provider you decide to go with, provides the ideal "centralised" customer data aggregation point - a crucial element in delivering an integrated customer engagement strategy and solution.

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By using the Cloud as the central customer identity management piece - linking customer identifiers in multiple systems together - one of the key foundation stones in the customer engagement management solution is in place. Putting customer reconciliation and linkage tools into the Cloud to support the solution then gives the business the ideal mechanism for multi-application customer engagement management.

The Cloud is designed to handle many millions, and billions, of information and data exchanges of the type required to integrate applications together.

By utilising the latent power of the Cloud to pass, handle and process customer engagement messages from different customer interaction systems and platforms, all brokered via the Cloud based customer identity management piece, the business can truly realise the benefits of a "best of breed" customer interaction product strategy.

Businesses are now able to consistently use the best tool for the job:

- The best finance application
- The best CRM application
- The best web site technologies, etc

Using Cloud based technologies enables businesses to benefit from a truly integrated solution approach, safe in the knowledge that they have the freedom to change applications as they need to. When what was the "best of breed" no longer deserves the title, businesses can switch applications without having to incur massive redevelopment integration costs (just plug

the new application into the Cloud based customer engagement model and off you go).

Utilising the inherent scalable nature of the Cloud also means that it can flex to handle dozens of interactions for smaller companies through to billions for large organisations, as well as handling peaks in demand - i.e. when a large marketing campaign is taking place - without the need for the business to purchase new, expensive infrastructure just to cover that particular "point in time" activity.

So the Cloud truly becomes a cost effective and highly scalable platform upon which to base a customer engagement strategy and solution.

In Conclusion

Hopefully this brief whitepaper has given you an enhanced understanding of:

- What the Cloud is all about
- What it means for the business and for the IT function
- How the Cloud could play an essential role in greatly enhancing your customer engagement management strategy and solutions
- How at the same time the Cloud can give you the ability to effectively manage IT costs whilst still being able to react effectively to peaks in demand

Just as CRM was seen as an ideal candidate application to be moved onto the Cloud - as a software-as-a-service offering - so the whole customer engagement piece, building on this early work, presents the perfect "next

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generation" opportunity to use the Cloud as the vehicle for delivering complete customer centric infrastructure platforms linking disparate "best of breed" applications together with the customer at the heart of it all.

Silverbear - as an early pioneer of internet and, latterly, Cloud based customer engagement delivery - is uniquely experienced and skilled to offer your business the advice and guidance necessary to start on the Cloud journey.

Acting as a "trusted advisor" and as part of your business management team, Silverbear can accompany you throughout the journey onto the Cloud and can guarantee the successful delivery of a Cloud based customer engagement solution that is appropriate to your business - its staff and customers.

With a considerable number of large, medium and small scale "Cloud" based customer engagement solution migration projects already undertaken - all of which are delivering quantitative and qualitative benefits to the businesses concerned - Silverbear is the ideal partner for businesses looking seriously at the Cloud as a tool for competitive advantage and as a catalyst for revolutionising their customer engagement approach.

For further information on Cloud based customer engagement solutions talk to Silverbear.

Contact our Cloud team:

- Call 01483 409409
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- Visit our website
www.silverbear.com.

The Silverbear logo consists of the word "silverbear" in a lowercase, sans-serif font, rendered in white against a grey rectangular background.