

ComputerWeekly – The realities of cloud formation

By Bob Tarzey, Analyst and Director, Quocirca Ltd

Salesforce.com's recent announcement of its VMforce platform for deploying Java applications is the latest in a long line of announcements from a wide range of vendors of such on-demand (or cloud based if you prefer) offerings. Many will be confused by the range of offerings and the terminology used to describe them and will be unsure of the risk and benefits. This gallery, written for Computer Weekly, by Quocirca aims to provide further insight.

Essentially there are three levels of on-demand offerings. These mirror the way IT is increasingly deployed internally.

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- SaaS**
 - Software as a service
 - Operating environment largely irrelevant, fully functional applications provided, e.g. CRM, ERP, email
- PaaS**
 - Platform as a service
 - Operating environment included, e.g. Windows/.NET, Linux/J2EE, applications of choice deployed
- IaaS**
 - Infrastructure as a service
 - Virtual platform on which required operating environment and application are deployed
 - Includes storage as a service offerings

The lowest level is infrastructure-as-a-service (IaaS). This is where pre-configured hardware is provided via a virtualised interface or hypervisor. There is no high level infrastructure software provided such as an operating system, this must be provided by the buyer embedded with their own virtual applications.

IaaS is particularly useful for organisations that are running virtualised applications internally, but may want to make use of additional capacity when their own resources are stretched. On demand storage is also considered as IaaS.

Platform as a service (PaaS) goes a stage further and includes the operating environment included

the operating system and application services. PaaS suits organisations that are committed to a given development environment for a given application but like the idea of someone else maintaining the deployment platform for them.

SaaS goes the whole hog, offering fully functional applications on-demand to provide specific services such as email management, CRM, ERP, web conferencing and an increasingly wide range of other applications.

Many independent software vendors (ISVs) are now turning the SaaS model and making on-demand versions of their applications available. To do so they are often using IaaS or PaaS for deployment.

Much of the coverage of on-demand offerings focuses on a few high profile vendors and it is easy to think the market is restricted to them. This is simply not true; many managed hosting providers are now providing IaaS and/or PaaS as an alternative to their traditional dedicated infrastructure hosting services. Add to this the number of ISVs now offering full or partial SaaS and the aggregated market these organisations represent is easily as big as that of their higher profile counterparts.

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- SaaS**
 - On-demand CRM (e.g. Salesforce.com)
 - On-demand email (e.g. hosted Exchange, Google Mail)
 - On-demand ERP (e.g. NetSuite)
 - Web conferencing (e.g. WebEx, Citrix On-demand)
 - Many other ISV offerings
- PaaS**
 - Microsoft Azure
 - Rackspace Cloud Sites
 - Salesforce.com – force.com, VMforce
 - Google App Engine
 - Other offerings from hosted service providers
- IaaS**
 - Amazon EC2
 - Rackspace Cloud Servers
 - Attenda RTI
 - Other offerings from hosted service providers

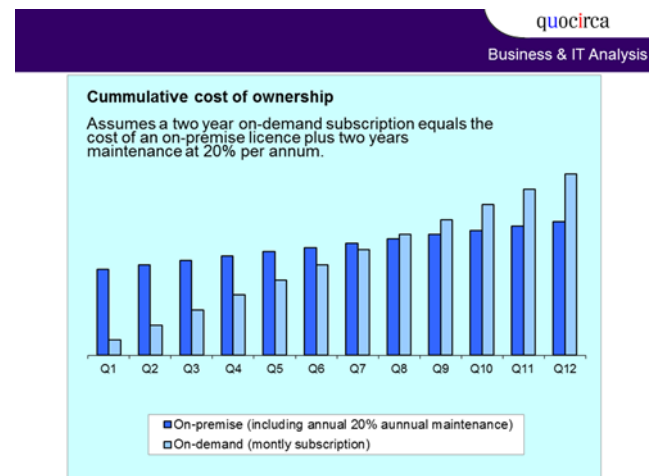
Choosing a supplier will depend on the type of platform required, the SLA on offer and the guarantees that can be offered around security and governance.

Perhaps the most high profile IaaS platform is the Amazon Elastic Compute Cloud (EC2). Other examples are Attenda's RTI and Rackspace's Cloud Servers (currently in beta and being fully launched in the next few months).

PaaS platforms included Microsoft's Azure which is based Windows and .NET (needless to say) and Google's AppEngine (Java based). Some PaaS offerings have a particular focus; force.com (the original salesforce.com platform) only supports applications developed using its proprietary APEX language. It was mainly aimed at customers wanting to extend their salesforce.com CRM deployments and ISVs wanting to sell their applications to existing salesforce.com customers. The new VMforce offering allows them to do that with Java as well. Rackspace's Cloud Sites it is used primarily for web sites, although some use it for applications.

SaaS includes a wide range of offerings including enterprise applications such as CRM and ERP, utility services including email, web conferencing and content security. The range of vendors is huge.

So why all the fuss, what is actually in it for you, the buyer? Just focus on the cost of the platform and all does not seem to add up. As figure 4 shows, if you go out and buy your own hardware and software after 8 quarters it is quite possible that the cumulative spending on an on-demand subscription could outstrip that of an on-premise deployment. But this only looks at hardware and software costs. The point is that by using an on-demand supplier you are also buying access to highly secure enterprise data centre facilities, skilled staffed specifically trained to support given applications and infrastructure, regularly scheduled backups, built in redundancy, easily shareable applications for supporting cross organizational business processes – to mention just some of the benefits.



Add all this in and for many the cost is easily outweighed by the reduced risk and added value of on-demand services. And don't forget, at some point all that on-premise hardware and software will need replacing; with on-demand providers that is part of the service, or at least it should be.

For many SMBs the business continuity option offered by on-demand services should be irresistible. For many enterprises, running utility IT applications via on-demand services also makes sense, freeing IT departments to focus on the applications that deliver unique value to their businesses.

Conclusions

- There are many more players in the on-demand market that many reports acknowledge
- These range from basic infrastructure offerings (IaaS), through platform support (PaaS) to full applications (SaaS)
- The long term cost of ownership may at first not seem to add up, but take into consideration other factors such as reduced risk and added value and for many organisations on-demand services make a lot of sense

About Quocirca

Quocirca is a primary research and analysis company specialising in the business impact of information technology and communications (ITC). With world-wide, native language reach, Quocirca provides in-depth insights into the views of buyers and influencers in large, mid-sized and small organisations. Its analyst team is made up of real-world practitioners with first hand experience of ITC delivery who continuously research and track the industry and its real usage in the markets.

Through researching perceptions, Quocirca uncovers the real hurdles to technology adoption – the personal and political aspects of an organisation's environment and the pressures of the need for demonstrable business value in any implementation. This capability to uncover and report back on the end-user perceptions in the market enables Quocirca to advise on the realities of technology adoption, not the promises.

Quocirca research is always pragmatic, business orientated and conducted in the context of the bigger picture. ITC has the ability to transform businesses and the processes that drive them, but often fails to do so. Quocirca's mission is to help organisations improve their success rate in process enablement through better levels of understanding and the adoption of the correct technologies at the correct time.

Quocirca has a pro-active primary research programme, regularly surveying users, purchasers and resellers of ITC products and services on emerging, evolving and maturing technologies. Over time, Quocirca has built a picture of long term investment trends, providing invaluable information for the whole of the ITC community.

Quocirca works with global and local providers of ITC products and services to help them deliver on the promise that ITC holds for business. Quocirca's clients include Oracle, Microsoft, IBM, O2, T-Mobile, HP, Xerox, EMC, Symantec and Cisco, along with other large and medium sized vendors, service providers and more specialist firms.

Details of Quocirca's work and the services it offers can be found at

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