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Open Comment – Obstacles to Cloud Computing

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The world seems to get smaller every day, closing in on the concept of the "global village" put forward by Wyndham Lewis in 1948. Already, over 1 billion people are effectively connected via devices attached to mainly open networks enabling them to exchange information in ways that would have been unthinkable 30 years ago.

And now, we have cloud computing. Although it's not a new idea, it has taken a while for standards, infrastructure and interest to meet, creating the perfect storm to make the idea technically and commercially viable. It has arrived, and the amount of interest from both vendors and users is considerable.

So, what is cloud computing? Ah, here we face a problem. At this stage, four people could be asked for a definition and would come up with at least five different ideas. However, if we take a very simplistic view of cloud computing, we can work from the basis that the end result for cloud computing is that aspects of a user's environment will be carried out in less-defined areas of a more global network.

This presents some technical issues around network performance that are not just related to bandwidth, but also areas such as jitter and latency, which can create usability issues that might frustrate a user to the point of wanting to move back to a purely client-centric environment. However, improvements in how applications are being developed, the hard- and soft-architectures underlying them, as well as improvements in how such applications are served - whether through content distribution technologies or through WAN acceleration technologies - means that these issues can be addressed.

Application security issues must also be considered. A composite application may be built from services provided from multiple sources, and the capability to identify where all the components are coming from may be limited. Therefore, it is difficult to ensure that back doors, worms, Trojans, viruses and other malware are kept out of a cloud environment. However, technologies exist from anti-malware vendors to minimize the issue.

So, technically, cloud computing looks like it should be okay. Even at a commercial level, the lessons learned from poor business models during the application service provider (ASP) boom and bust of the late 1990s have resulted in subscription models and/or advertisement-sponsored models preserving and leading to the rise of vendors such as Salesforce.com, NetSuite, Google and Amazon. Then there are the big guys, such as Microsoft and IBM that have jumped on the bandwagon, and the depth of their pockets will enable the marketing of cloud as a concept in a way that others will be able to benefit from.

But, the biggest issue comes from governments. Cloud computing is predicated on a concept of borderless global networks. Governments, for one reason or another, don't like this idea. At a basic level, governments need borders to define their very raison d'être - without something that states "This is mine; that is yours," there is nothing to govern. Once you have a physical space that needs governing, then you need money to do it with - and so enters taxation. Cloud computing is difficult to tax. If you cannot point exactly to where something is, then under which government's taxation laws does it fall? The idea to tax at the point of usage, falls apart for those services that are free at the point of use. If tax is based on the location of the registered office of a cloud computing company, then they will move their virtual offices to the lowest tax area.

Then there is the issue of data ownership. This is a big issue for many governments, especially

those countries with laws prohibiting the placement of details on its citizens outside of the country. That this is now patently impossible to either adhere to or police is neither here nor there, the governments involved will carry on in the blithe perception that they are keeping all data on their citizens safe within the boundaries of their physical state. As an example of how this is impossible, are you a member of LinkedIn or Plaxo? Do you know where the information that you have uploaded there is held? Do you know whether the information you have uploaded there adheres to both your government's data protection laws and those of the government of the person whose details you are viewing? How about the laws of the government where the company is registered, the laws of the government responsible for the registered office of the cloud computing company, and the laws of the country or countries where their data centers are?

Much of this may be covered in the contract you sign or accept with the vendors: It will state which county's laws any disagreements will be dealt with, but you will still have the responsibility for ensuring that the contract does not contradict the laws under which you have to operate. In other words, it's a mess, and there are few signs that it will become clearer in the short term.

We need a far more enlightened approach from governments; and the recent financial meltdown has shown that local rules cannot apply any longer. A more open approach to taxation will be required, along with globally accepted approaches to data security standards. A harmonization of laws is needed - otherwise the global village will continue to work outside of the rules that internally focused governments attempt to place on it. We can all hope that the financial crisis will create the focus that is required - but don't hold your breath.

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, Dell, T-Mobile, Vodafone, EMC, Symantec and Cisco, along with other large and medium sized vendors, service providers and more specialist firms.

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