

Straight Talking – 6 things CIOs must consider before moving to the cloud

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Cloud computing has been hailed as the cure for all IT ills. Fortunately, a measure of reality is now returning to people's view of the technology and the business value it can provide.

Nevertheless, some organisations are still not thinking through the issues of cloud computing, which may cause them problems down the line. If these issues aren't accommodated for, the cloud can become a barrel over which providers can stretch client organisations.

So, what are those issues and how can we minimise their impact?

1. Data ownership

The first issue is making sure you own the data and that this ownership is built into the agreement with the provider.

The application, the hardware, the operating system and everything else can be owned by the cloud provider. But the data is what your intellectual property is predicated upon and it has to be acknowledged that you can take that data away with you as you see fit.

2. Data access

Data ownership does not amount to much if you are denied access to that data to migrate it away from the cloud provider.

Your cloud subscription gives you access to the functionality of the application or function that you use. If that access is removed, can you still access the data so that you can take it away with you?

Make sure the contract allows for access to the back-end data, either directly or via the provider offering an export capability, even after the contract has finished.

3. Data volumes

Cloud is great for off-site elastic computing, where extra resources can be applied in the form

of more compute power, or more storage. However, as that storage capability grows, so does a specific problem.

Migrating 1GB of data across a wide-area network is pretty simple but how about 1TB? That migration can take a long time, and if you need to work against that data in real-time, you'll have to plan for a degree of downtime while the data is pulled from the cloud and reinstalled against a replacement application or function.

Even if you can agree to set up a mirrored cloud or on-premise data topology, look out for clauses in the agreement that charge for data volumes.

Also, look at data cleansing and deduplication options, which can minimise overall volumes. If left unmanaged, mirroring data can rapidly become a major cost if data transfers are being charged for.

4. Data usability

Most cloud-based systems are built on a standardised database but that does not mean you can, for example, take a copy of the database from Salesforce.com and use it on a NetSuite system.

For an on-premise system, you have to understand the database architecture. For a cloud-based system, that understanding is just as important. Data has to be massaged to be usable by the receiving system. It is best to plan for this possibility early, rather than waiting to see if or when it may be required.

5. Competitive acquisition

Why should a bank or a retail organisation not become a cloud provider? If they have datacentres that they suddenly realise can be highly virtualised, they could find themselves with spare space usable for little else apart from housing datacentre equipment.

These circumstances are essentially how Amazon started in cloud computing. If you are a bank using a cloud-based service and your provider is suddenly taken over by one of your competitors, would you be happy to allow them to run your email system for you? Probably not. You need to plan how to migrate rapidly to an alternative.

6. The nuclear option

What do you do when the chosen cloud supplier goes out of business? There has been continual churn in hosting providers and the application service provider model of the 1990s showed how a few high-profile failures can start a stampede.

Granted, today's providers come from a more stable stock, and the business models should provide greater longevity, but a degree of churn is inevitable.

If a provider goes bust, then an administrator is likely to be appointed to try and sort out the business. Some administrators will try and sell it as a going concern, in which case there should be fewer problems than if a predatory administrator is put in place.

But many administration companies seem to be moving more rapidly to asset-stripping. They identify the assets, sell them off, pay anything that is owed to the biggest preferential creditors - usually the government - pay their own bills and then see if there is anything left.

This approach brings its own problems, the first of which is gaining access to your data. You can deal with this situation by implementing suitable data topologies with full-image or incremental and snapshot capabilities to a backup storage facility. The real problem is how the administrator disposes of equipment.

You won't have to bother about the application servers, because there's no intellectual property in there. But storage systems? If these are just being packed up and resold, then copies of your data could well be sold on in a usable format.

It is imperative that the contract includes data encryption at rest so data is more difficult for people to do anything with on storage recycling.

It should also be part of the contract that storage units are cleansed of data at a forensic level before being disposed of, no matter who owns the cloud company or data facility at the time of disposal.

The cloud has many benefits and will form an increasing part of an organisation's IT platform. But to get the most from it, forethought and planning is required. Dealing with data so that it doesn't become a major issue should be a priority for those deploying cloud services.

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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.

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