



# SPECIAL REPORT: THE CLOUD

**Cloud computing is the latest tech buzzword, but its exact nature and boundaries are still undefined. We explore the hype versus the reality**

DATE: 30 March 2009

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## ANALYSIS

### **In a world where all financial trading is**

electronic, how do you run a fund management company without an IT department? The answer sounds like dialogue plucked from Stanley Kubrick's *2001: A Space Odyssey* – with a virtual IT department hosted in “the cloud”, of course. London-based boutique fund manager Majedie Asset Management competes with such giants as Fidelity and Schrodgers, but does not have the resources to build equally large IT departments.

Rather than try to build its own internal IT systems, Majedie decided to outsource its IT department to services hosted by external providers. It has enabled Majedie to provide the same levels of service as its competitors without their colossal IT budgets. Simon Hazlitt, client director at Majedie Asset Management explains: “We can just use the information we need without having to negotiate with an internal IT department about how to manage that information. It allows us to design an IT network that suits us rather than one that suits the IT department.”

### **Size and scale**

The business case for the use of cloud computing by small firms who want to compete with much larger rivals is compelling. But is the cloud viable for companies with thousands of employees in multiple locations?

Cloud computing has been rapidly embraced by consumers – whether they're making use of the likes of Flickr, or livening up a dull day at the office by watching dancing cats on YouTube. Business adoption of the cloud, however, has been less rapid.

IT practitioners with sense have realised that if companies like Google can make money

by only receiving income from advertising click-throughs, their IT costs must be very low.

John Bailey, CIO of the Civil Information Systems & Technology group of global construction giant Bechtel, says: “We have a very good handle on our IT costs and we knew YouTube could not be paying the same rates we're paying for network access and be able to deliver 100 million video streams a day for free. They just had to be paying far less.”

In today's straightened financial times, CIOs are under pressure to contain spending. So how can companies copy the likes of Google and drive down their costs? While it makes sense for a small firm like Majedie to move all its IT requirements to the cloud, a piecemeal approach may be better for larger organisations.

Marc Silvester, chief technology officer at Fujitsu, says companies need to have a deep sense of self-awareness to make the most of cloud computing.

“At its best cloud computing can offer a virtual computing power and storage environment and the company doesn't care if it is provided by one supplier or many.

“But to get the most financial benefit out of cloud computing, a company has to understand what its key differentiating business processes are. It's not usually the obvious processes that run the business.”

A selective chunking up of IT services and moving certain sections into the cloud is the most realistic approach for most businesses and larger organisations, says Jon Collins, managing director of technology research company Freeform Dynamics. “For larger organisations, there will never be the situation where all programs



provided 'in the cloud' will be perfectly tuned to the business need. A hybrid solution using both in-house and cloud computing will be the best solution. For smaller organisations, it is fair to say that a significant number of services may become available from the cloud, subject to network bandwidth constraints."

But which part of an IT department can or should be moved to the cloud? That depends on how you define cloud computing. For some, deciding to get rid of a company's own data centre and move to a virtual server network is cloud computing. For others, cloud computing is about using the internet to access software applications with the data in those applications stored in multiple locations. It's easy to associate big web companies such as Google with the cloud, but analyst house Forrester Research's recent list of 11 cloud computing vendors to watch covers a whole range of companies – from traditional IT suppliers to software as a service (SaaS) upstarts such as Salesforce.com, and even online retailer Amazon.

Customer relationship management (CRM) and ecommerce software applications have been popular cloud services. Companies like NetSuite and Salesforce.com deliver these systems over the internet and ensure that sales orders are passed onto warehouses and the company's accounting systems.

Craig Sullivan, vice president of international products at NetSuite, says: "The advantage of running a CRM system in the cloud is that the company no longer has to worry about the complexity of managing the application. They don't have to procure hardware, connect it to the network, ensure it's secure or make sure the data is backed up."

### Clouds and the crunch

In these difficult economic times, cloud computing services allow companies to be flexible, so they can expand their business without worrying about having to invest.

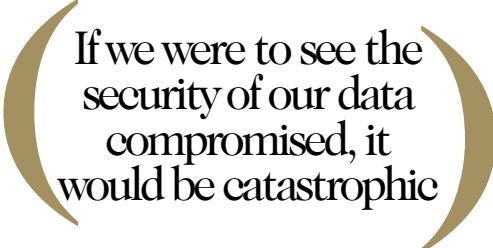
But for many CIOs the biggest barrier is a concern over security being compromised. Ben Booth, global chief of technology for market research giant Ipsos, says it is vital to keep the data of their market research secure to protect the company's clients and its respondents.

"If we were to see the security of our data compromised, it would be catastrophic. Clients would stop commissioning and respondents would stop answering surveys," he explains. "The problem with cloud computing is that you don't need to know where your data is and I think that

is terribly worrying and makes it an unacceptable technology for many businesses."

This is partly being addressed by vendors starting to offer enterprise-level services where customers can specify in which location they want their data stored.

Another security issue is data repatriation from the cloud, according to Adrian Seccombe, chief



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information security officer at pharmaceutical giant Eli Lilly and board member of security body the Jericho Forum.

"Once we've assumed we've fixed the identity and access management aspects, how do we know we've repatriated the data that we actually put out there?" he says. "We're looking for services and techniques that can say 'this is no longer a question, we've got proof that it's repatriated, we know there are no remnants out in the cloud and this sensitive information is fully repatriated'"

### The case for clouds

But Adam Selipksy, vice president of product management and developer relations for Amazon Web Services, argues: "The question to be asked is: 'Is cloud computing more or less secure than what?' Data being under your control doesn't necessarily mean it's secure.

"Once we explain that Amazon has to have a secure and reliable IT infrastructure to be able to operate as a business, most concerns tend to diminish."

Fujitsu's Silvester says many in charge of IT procurement find themselves being pulled in two different directions. "Customers want the financial benefits of a shared platform but don't want the security risk associated with it."

It's clear that, aside from a few trailblazers, most big organisations are still taking a cautious approach to cloud computing, with analyst house Gartner predicting cloud computing won't see mainstream critical mass and commoditisation until 2015.

Just as it took many years to sort the science fiction from the science fact of Kubrick's *2001: A Space Odyssey*, it will still take some time for the reality to be sorted from the hype of cloud computing. ●